23rd Annual Report
Royal Ontario Museum
July 1972/June 1973

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The Cover

Painted earthenware tomb figure of foreign horseman from the tomb of the princess Yung T'ai. T'ang dynasty: A.D. 706. Excavated in 1964 at Ch'ien-hsien, Shensi.

This dramatically active figure is one of almost 400 objects which comprise the great exhibition of Chinese archaeology which will open at the ROM on August 8, 1974.

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23rd Annual Report
Royal Ontario Museum
July 1972/June 1973

ROM

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as of June 30, 1973
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Jubilee Year garden party in the Chinese Garden.

Report of the Board of Trustees of the Royal Ontario Museum

To the Lieutenant Governor in Council
July 1972–June 1973

Under the Statute governing the Museum, the Board's responsibility is to provide for the effective operation of the Museum on a continuing basis and to ensure that it has qualified professional direction. Thus, in May 1973 the Board took the bold step of establishing a concept of dual stewardship to implement this responsibility.

In June, 1973, the Board appointed Dr. Walter M. Tovell, the former Associate Director, as Director of the Museum. Dr. Tovell, who has a distinguished career in both the academic and museum fields, was Curator of the Department of Geology before his appointment as Associate Director in 1971. He will now have prime responsibility for the academic and curatorial affairs of the Museum, particularly in connection with the curatorial departments. Dr. Tovell has contributed a great deal to the Museum since his first appointment to the Department of Geology in 1946. The Board is particularly grateful for his work during the past year as Director, *pro tem*. We look forward to his further contributions in the months ahead.

At the same time, the Board appointed Mr. A. Maxwell Henderson, former Auditor General of Canada, as Director (Administration) with responsibility for the administrative, non-academic and financial affairs of the Museum, including the coordination of financial and administrative matters of all departments as well as responsibility for the service departments whose function it is to support the curators in various specialized fields.

In appointing Dr. Tovell as Director, the Board implemented a further policy, that of promoting from within the Museum ranks, with provision for further support for the Director from the Curatorial staff. Dr. W.B. Scott, Curator-in-charge, Department of Ichthyology and Herpetology has therefore been appointed Associate Director.

The Board continues to work toward the expansion of the Museum's facilities, both as to the physical facilities of the main buildings, and to the extension of the Museum's services to other parts of the Province. In the opinion of the Board, it is this Provincial extension that is the most promising future development. An expansion in premises in Toronto must include provision for packing and shipping facilities as well as for staff increases to develop a full scale Extension Division which we hope will provide more meaning to every citizen of Ontario.

In June, 1973, Mr. John E. Langdon, Vice-Chairman, Mr. Roy Cole, Mr. Stephen Roman and Mrs. W.B. Harris completed their terms of office as members of the Board. In their place, the Provincial Government has appointed Mr. P.G. White of London, Mr. R. Wheeler of Hamilton and Mr. H.D. Guthrie of Toronto, while the members of the Museum have elected Mrs. Ernest Redelmeier of Richmond Hill.

Supported as we are by the Province of Ontario to the extent of approximately 4 million dollars each year, the Museum is always conscious of its obligation to the people and communities of the Province. We are most grateful for their generous support.

The Board wishes to thank the Canada Council, the Municipalities of Metropolitan Toronto, and the many individual and corporate donors who provide the funds for specific projects related to the operation of the Museum and for the acquisition of artifacts. We are grateful, too, for assistance received from school boards toward the operation of our Education Department which provides formal instruction for school classes.

The Board also acknowledges with much appreciation the work done by the many volunteers who are so helpful in so many ways.

Lastly, but by no means least, the Board acknowledges the contribution of the 350 members of the Museum staff whose work in the galleries, and in the laboratories and offices behind the scenes makes it possible to bring the Museum to those visitors and correspondents seeking to learn about our cultural and natural heritage.

Noah Torno
Chairman, Board of Trustees

November 1973

Director's Report

Walter M. Tovell

In spite of the *pro tem* administration that existed throughout the year, the ROM had an extremely fruitful, interesting, and constructive year. The details of the departmental and personal performances, exhibits and publications, research and individual honours appear throughout the balance of this report. However, these reports do not show that with the cooperation of the members of the ROM Board of Trustees, many of the long-standing staff problems of the Museum were brought into the open, discussed and are now on the way to a solution. These include curatorial and non-curatorial salaries, tenure with respect to curatorial personnel, and revisions to the Museum Act.

I wish to express my support of the policy announced by the Board of Trustees which stated that the operation of the Museum would be vested in a Director, responsible for academic and curatorial affairs, and a Director (Administration) responsible for non-academic, administrative and financial affairs. I believe it is the best solution through which the institution can retain its academic nature and, at the same time, develop the organization required for the forthcoming expansion programme. The expansion will not just be of the present facilities in Toronto, but of its activities throughout the province. The forerunners of these programmes took place this year.

The ROM now operates two Museumobiles. One, that of the Department of Ethnology, tours Indian Reserves; the second, produced by the Department of Invertebrate Palaeontology, has been assigned to school boards, County Museums, and County Fairs. In addition, the European Department placed an exhibit of European ceramics in the Bracebridge Library. Four exhibits were also placed in the museum cases in the Yorkdale Shopping Centre and the Royal Bank of Canada. In these last two cases the displays were financed with the support of these institutions.

On the national scene, the Far Eastern Department in conjunction with the Art Gallery of Greater Victoria organized an exhibition of Chinese and Japanese *objets d'art* for exhibition in Toronto, Montreal and Victoria. This interprovincial exhibition was made possible by a grant from Canada Council. Finally, numerous objects were loaned from all departments for study and display to provincial, national and international institutions.

These activities testify to the expansion of the out-going policies of museums in general. In pursuit of these policies, the ROM was represented at meetings connected with the new National Museums Policy for the democratization and decentralization of national collections on a national basis, and at meetings of the Ontario Arts Council and the Ministry of Colleges and Universities of the Province of Ontario, to discuss the Museum's participation in the forthcoming Festival-Ontario.

It is said that "He who looks not back, loses his way", and it would seem that the ROM has now looked back into the past and can now look forward to the future. Indeed, it must look forward, not only to the expansion of its activities outlined above, but also to expansion within the Metropolitan area. The capacity of the institution, within its present framework, is at the maximum. The need for the expansion has been demonstrated by consultants and a staff committee. In particular, the lack of certain facilities in the present building make it impossible to be of service to certain areas of society who wish to use the building, and enjoy its collections. I refer particularly to paraplegics and many senior citizens.

The ROM is heavily and generously supported by the Ontario Government through the Ministry of Colleges and Universities. This Ministry, like other departments of the government, has undergone a reorganization. Now under the administration of the Honourable J. McNie, Minister, and with him Deputy Minister, Dr. J. Gordon Parr, the Ministry is developing a strong cultural policy for the Province of Ontario. Under this policy the ROM and like institutions will play a significant role. All of us associated with the ROM congratulate the Minister and his staff and, of course, the government as a whole for supporting our efforts in this area of emerging importance.

On the personal side, I must offer a sincere thank you to each and every staff member. 1972-73 will not go down as the easiest year in the history of ROM, but it is certainly one in which staff cooperation was established and we all came out with a better understanding of what the ROM is and could be. Yet, as I write of the staff, I must include a note of sadness. On 12 May 1973 Harold B. Burnham died. He had been on the curatorial staff of the Textile Department since 1958 and became Curator of the department in 1969. He will be missed as a person and a scholar, not only by the Museum, but by the entire community of those interested in his discipline.

The Museum should be pleased that the Department of Geology now has on its staff Dr. S. Lumbers as Associate Curator-in-charge. Dr. Lumbers is a recognized authority on Precambrian geology and he can provide the expertise in an area that has long been neglected by the institution, namely, petrography, the systematic study of rocks.

Finally, the ROM Board of Trustees must be commended for its many hours of discussion at formal board and committee meetings. The new members, in particular, added a new dimension, and the interest they showed in learning about the institution was gratifying. The board serves without remuneration; they are truly the servants of the public.

We now look ahead to what is before us, and high on the list is the great exhibition of the Chinese Archaeological Treasures. We do not know the exact dates but it is anticipated that it will be the fall of 1974. This will indeed be the crowning event since we opened in 1914.

Auditors' Report

To the Trustees of The Royal Ontario Museum:

We have examined the balance sheet of The Royal Ontario Museum as at June 30, 1973 and the statement of financial operations for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances, except as noted in the following paragraph.

Bequests, grants and donations to trust accounts, by their nature, are not susceptible of complete audit verification. Accordingly our verification of receipts from these sources was limited to a comparison of recorded receipts with bank deposits.

In our opinion, except for the effect of any adjustments which might have been required had we been able to completely verify bequests, grants and donations, the accompanying financial statments present fairly the financial position of the Museum as at June 30, 1973 and the results of its operations for the year then ended, in accordance with accounting principles generally accepted for non-profit organizations applied on a basis consistent with that of the preceding year.

Toronto, Canada,
August 24, 1973

Clarkson, Gordon & Co.

Clarkson, Gordon & Co.,
Chartered Accountants

The Royal Ontario Museum

(Incorporated by Special Act of the Ontario Legislature as a corporation without share capital)

Balance Sheet
June 30, 1973

(with comparative figures as at June 30, 1972)

	1973	1972
Assets		
Operating:		
Cash	$ 80,036	$ 19,935
Short-term deposits	187,934	297,769
Travel advances	48,866	36,747
Accounts receivable	42,485	26,153
Inventories at the lower of cost and realizable value	78,866	69,752
Fixed at nominal value		
Land and buildings	1	1
Contents	1	1
	438,189	450,358
Trust:		
Short-term deposits	840,066	777,231
Marketable securities at cost (quoted market value - $2,106,000; 1972 - $1,916,000)	2,127,668	1,943,827
Accrued interest	40,725	32,109
	3,008,459	2,753,167
	$3,446,648	$3,203,525
Liabilities and Trust Funds		
Operating:		
Accounts payable and accrued liabilities	$ 216,253	$ 228,921
General reserve	221,926	221,437
	438,179	450,358
Trust funds	3,008,469	2,753,167
	$3,446,648	$3,203,525

On behalf of the Board:
Trustee: Noah Torno
Trustee: John E. Langdon

The Royal Ontario Museum Statement of Financial Operations

Year Ended June 30, 1973

(with comparative figures for the year ended June 30, 1972)

	1973			1972
	Operating	Trust	Total	Total
Receipts:				
Operating:				
Province of Ontario grants	$4,400,000		$4,400,000	$4,000,000
Board of Education grants	49,596		49,596	77,059
Admission fees	198,307		198,307	210,572
Museology fees and grants	53,737		53,737	47,939
Service departments (net)	52,383		52,383	20,299
Other	5,783		5,783	
Trust:				
Bequests, grants and donations		$563,820	563,820	719,132
Investment income		204,061	204,061	216,000
Membership fees:				
Annual		71,442	71,442	67,035
Life		7,560	7,560	10,367
Admission fees		50,450	50,450	50,106
Other		82,673	82,673	71,395
Total receipts	4,759,806	980,006	5,739,812	5,489,904
Disbursements:				
Artifacts and specimens	113,338	113,831	227,169	424,574
Building maintenance	410,564	6,638	417,202	299,507
Equipment	121,718	147,917	269,635	200,681
Supplies	136,259	41,647	177,906	157,398
Excavations	61,934	31,208	93,142	148,077
Gallery renovations	1,714	129,592	131,306	132,925
Contingencies	29,418		29,418	118,673
Services	147,602	909	148,511	116,037
Travel, expeditions	98,722	13,549	112,271	90,371
Exhibitions (net)	85,930	48,836	134,766	97,022
Books and periodicals	55,912	2,128	58,040	69,869
Publications (net)	16,510	9,650	26,160	80,299
Advertising and publicity	73,893	12,821	86,714	60,839
Other	56,264	56,860	113,124	86,777
Salaries and wages	3,349,539	109,118	3,458,657	3,051,012
Total disbursements	4,759,317	724,704	5,484,021	5,134,061
Excess of receipts over disbursements for the year	489	255,302	255,791	355,843
Balance of general reserve and trust funds, beginning of year	221,437	2,753,167	2,974,604	2,618,761
Balance of general reserve and trust funds, end of year	$ 221,926	$3,008,469	$3,230,395	$2,974,604

Office of the Chief Archaeologist

Dr. A.D. Tushingham

The Chief Archaeologist reports a year in which there were a few surprises, a few disappointments and a few new developments.

One of the surprises was the totally unexpected request from the Alderville Indian Band and from Roseneath Centennial School that the ROM work with them to excavate the sites of their ancestors on East Sugar Island in Rice Lake, Ontario. We would provide the professional supervision; the Indian students of the school would do the actual digging. Dr. Walter Kenyon, with the able assistance of Mr. John Prideaux, took up the challenge with the happiest of results from every point of view. Archaeologically speaking, we can report the discovery of evidence for various occupations on the island from about 5000 B.C. to the present.

Excavation of an Indian site on East Sugar Island, Ontario during 1972.

Field Projects - Canada

Dr. Kenyon's growing interest in the Arctic led him to make two brief visits to Charlton Island in James Bay to find the site where Captain Thomas James spent the winter of 1631-32, and also the location of the "Prudent Mary," a 140-ton Hudson's Bay Company vessel which foundered in 1680. In these quests he was unsuccessful, but he did discover a Hudson's Bay Company trading post built by governor John Nixon dating from about 1675-95.

Dr. Peter Storck continued his search for early man sites in the Province, so far with slim results. He also tested a number of sites reported to the Museum by various interested people, including a rich Point Peninsula (i.e. about 2000 years old) site northeast of Kingston, and carried out a brief survey northeast of Wawa, Ontario, where he recorded over fifty sites.

During the summer of 1972, three graduate students supervised field programmes completely or partly financed by the ROM. William Finlayson of the University of Toronto continued his work in the Port Elgin, Southampton and Inverhuron Park area. Victor Konrad, of York University, completed a two-year survey which resulted in the recording of 191 archaeological sites in the Metropolitan Toronto Planning area. Morgan Tamplin, of the University of Arizona, continued excavations at a site on The Pas Reserve in Manitoba which documents occupation of the area over the past 5000 years.

Last summer, under the direction of Dr. Daniel Nelson, a search was initiated for the U.S. Navy armed schooners *Hamilton* and *Scourge*, lost in a squall during a naval action in Lake Ontario in August 1813 in some 300 feet of water. The search involved the towing of sophisticated magnetometer search gear from the *CCGS Porte Dauphine* for a series of sweeps over the target area off Port Weller. Unfortunately, the complicated manoeuvres were frustrated by many problems and bad weather which finally forced the abandonment of the project until the summer of 1973.

The Canadiana Department has been planning, over the past year, archaeological exploration in the Maritime Provinces to seek evidences of early settlements which are, at present, documented by literary sources only.

Central and South America

During the past year, our field projects in Peru and Mexico have moved through the preliminary exploration phases and during the year 1973-74, we hope, they will concentrate on chosen sites even though broad ecological and comparative studies will continue throughout the whole course of the operations. Miss Martha Anders, a Research Assistant, made a survey of library resources on Peruvian archaeology at the University of Toronto and the ROM to give us an idea of what was required. Mr. Kent Day, our

field director in Peru, returned there briefly in November to continue his survey while, during the spring, two Peruvian scholars, Drs. Rogger Ravines and Duccio Bonavia, have been carrying out ethnobotanical studies with our support. During the summer of 1973, a team of Canadian and Peruvian students and experts should begin excavation on one or more sites. In Mexico, the field director, Dr. Peter Harrison, has continued his field survey in the Territory of Quintana Roo, and plans are well advanced for excavation to begin next January at the ceremonial site of Tzibanche.

One disappointment of the past year was Dr. Pendergast's illness which prevented him from inaugurating the first season at Lamanai, another Maya site in British Honduras. Fortunately, he is well on his way to recovery and, in addition, over the past year has almost completed the research work and detailed writing for the publication of the results of his seven years' excavations at Altun Ha. He, too, should enter the field again next January.

England and the Ancient World

The summer of 1972 was an "off" year for our work in Iran, but Dr. T.C. Young, Jr., and Dr. Louis Levine have prepared a second progress report on their work at Godin Tepe and Seh Gabi which will soon be published as one of our *Occasional Papers*.

In England, Mr. Francis Pryor conducted his second season of excavations in the Fengate near Peterborough. Certainly his most exciting discovery was the traces of a house, on rectangular plan, of the Neolithic period which can be dated, on the basis of Carbon-14, to the first half of the fourth millennium B.C.

At Alahan, in south central Turkey, Mr. Michael Gough continued his work of excavation and reconstruction at the ancient Byzantine monastery complex. Of especial importance was the further investigation of the efficient drainage facilities which prevented the worst ravages of flooding caused by heavy rains, but also provided a copious water supply for cisterns and baths.

During the past year, we have completed the planning for a provisional field season in West Africa—in Gambia and Senegal—which should take place this coming winter under the direction of Dr. Matthew Hill of the University of Waterloo.

Dr. Tushingham rejoiced, in the summer of 1972, to see the publication of the results of his excavations at Dhiban (Biblical Dibon) in Jordan, carried out in 1952-53. He is still working on the results of the ROM's work at Jerusalem 1962-67 in collaboration with the British School of Archaeology.

Members of the Chief Archaeologist's staff have curatorial responsibilities as well as field programmes. It is frustrating that the problem of exhibition for the ROM's unexcelled collections of Ontario archaeological materials remains unsolved, which means that the Provincial Museum has no display of the archaeology of Ontario Indians and Eskimo. One slight and partial amelioration of this situation is the invitation to Dr. Kenyon to prepare a Museumobile on Ontario archaeology. There is little prospect for an improvement of our pre-Columbian displays and no hope that the public will see our excellent Old World and European Stone, Bronze and Iron Age collections for years to come.

Honours and Offices

The contributions of the staff to other museum-related activities and honours they received must be noted. Dr. Pendergast was a member of the joint Board-Staff Search Committee and the Art and Archaeology Editorial Committee. He was also elected President of the Toronto Region Branch of the Architectural Conservancy of Ontario and was appointed a member of the Consultative Committee on Archaeology for the Canada Council. Dr. Kenyon continued as a member of the Ontario Archaeological and Historical Sites Board and of the Advisory Council on Underwater Archaeology. Dr. Storck has been, for the past year, Secretary of the Art and Archaeology Curatorial Council. Dr. Tushingham has been a member of the Directors' Consultative Committee and the Salaries Committee; he was elected for another term as Chairman of the Toronto Historical Board and was honoured by being named a Fellow of the Royal Society of Canada and a Fellow of the Canadian Museums Association.

The staff of this Office wish to express their profound thanks to those many private individuals, corporations, government bodies and foundations whose interest and material assistance have contributed so valuably to our field programme.

Canadiana Department

D.B. Webster, Curator

Of the events of the past year, certainly the most visible accomplishment has been the opening of the new second floor gallery in the Canadiana Building. Structural changes were begun in the summer of 1972, and the early 19th century Belanger house panelled room from St. Jean Port Joli, Quebec, formerly located in the main building and long closed to the public, was moved and reinstalled. Other sections of the new gallery are devoted to Canadian ceramics and Quebec wood carvings and toys, of which very little had been previously displayed.

In addition, two cases and a photograph panel were set up in the ground floor hallway for exhibiting artifacts from recent historic archaeological operations.

The new gallery and archaeological area was formally opened with a two-night open house on January 8th and 9th, which also marked the closing of the special "Images of Canada" exhibition.

The J.N. McCrea model collection, formerly displayed in the main museum, was also moved to a wholly new installation designed and constructed by the Display Department at the end of our South Gallery.

Exhibitions

Quarterly exhibitions in the South Gallery have continued a regular rotation programme of putting on public display different items in our very large picture collection. These

Panelled room, in Adamesque style, c. 1820, from the Belanger House, St. Jean Port Joli, Quebec. This room is installed in the new second floor gallery at the Canadiana Building.

special exhibitions, chosen and organzied by Mrs. Ignatieff and Mrs. Allodi, included during the year "Early Views of the Atlantic Provinces", "Images of Canada"—a loan show from the Public Archives of Canada, "The Seven Years' War", and "Scenes in Canada by Cornelius Krieghoff", which was organized by the McCord Museum in Montreal.

Projects and Commitments
Behind the scenes, a new archaeological lab, storeroom, and general workroom is now fully functioning with Miss Nancy Willson responsible for archaeological material, drawing and drafting, field and basic conservation, and picture mounting and framing. In the same area is an office for Mr. David Newlands, who joined the staff on June 15, 1973, as Curatorial Assistant for historical archaeology. He will work essentially as a field archaeologist, on sites from Ontario to the Maritimes. Mr. Phil Dunning III, who joined the staff as our second technician in July, 1972, is responsible for furniture and general collection cataloguing, restoration and maintenance. The reference library has moved to a library room on the second floor. This is under the control of Miss Janet Holmes, who in addition to serving as historical researcher, resident glass specialist, catalogue organizer, and teacher, takes care of all book ordering.

In July, 1972, Janet Holmes with a small crew completed her archaeological project at the Como glassworks at Como, Quebec. This resulted in the exposure of some interesting early glass manufacturing structure, as well as artifacts. A report is now in preparation.

The Curator, in June, 1973, commenced a site search and survey on Cape Breton Island for very early European settlement sites, after a year of documentary researching.

Mary Allodi has completed her catalogue of the extensive watercolour and drawing collection, which is expected to be published in the coming year as a large volume, illustrated with some 30 colour and 300 black and white illustrations.

Internal teaching commitments included the curator's graduate course in North American decorative arts, and Miss Holmes' portion of the 3rd year decorative arts course. Externally, the curator and Mrs. Ignatieff provided an evening extension course for Sir Sandford Fleming College, Peterborough, in the fall, and repeated this at Cobourg in the spring, as well as offering most of an evening course for Victoria College in January-February. In addition, Mr. Webster, Mrs. Ignatieff and Miss Holmes had their usual schedule of special lectures to numerous organizations, both in Toronto and outside.

Loans, Gifts and Accessions
Short-term exhibition loans to other institutions have included pictures and objects to the National Gallery of Canada, Art Gallery of Ontario, Ontario Science Centre, McCord Museum, Glenhyrst Arts Council, and Agnes Etherington Art Centre. A large annually-renewable loan of furniture has been made to the Ministry of Industry and Tourism for furnishing the Naval Establishment, *c.* 1830, at Penetanguishene. Other exhibitions have included special displays at the Yorkdale Shopping Centre and the annual Canadian Antique Dealers Association show at the St. Lawrence Market.

In the face of increasing loan requests, we have become more conservative in making loans. However, with a tight furniture and objects storage situation, as reported last year, we have decided that annually-renewable loans are a better answer than either inaccessible storage in the warehouse or large-scale disposals. If we should sometime in the future develop satellite museums or historic houses, with a year's notice necessary furnishing material could be recalled.

The Department accepted gifts from a total of 31 individuals (see Appendix, page 73).

Acquisition purchases totalled 73 objects, including such important pieces as a labelled Thomas Nisbet sewing/writing table, a Quebec bombée commode, one of five such pieces known, a very fine engraved muzzle-loading target rifle by William Marston, Toronto, and a unique Nova Scotia Chippendale corner chair. Excluding cash gifts for particular objects, we expended approximately $26,700 for acquisitions, some $15,500 from Sigmund Samuel endowment income, and the balance from Museum acquisition funds.

Long-term Projects
With the help of two summer student employees, we are continuing two long-term projects: mounting the watercolour and print collection in acid-free mounts, and making a complete photographic file of collection material. The watercolour collection, of which only 20% had previously been recorded, is being photographed on 4x5 negatives, with contact file prints. The complete programme will require about four summers and will provide much greater efficiency in serving increasing public requests.

Public requests continued to increase, with the heaviest burden falling on Miss Karen Haslan, who as department secretary is the first contact. We regard this as a perfectly legitimate public service, but it has become so time-consuming that we hope soon to add another new person to staff, as "public service co-ordinator."

Attendance
Visitors to the Canadiana building galleries total 32,851 from June 1, 1972 to May 31, 1973, an increase of 6,154 from a year earlier. This represents a marked increase from the pattern of the last five years (an average annual increase of 1500 to 2000), which may be partially attributable to the new gallery and the McCrea models.

Conservation Department

B. Leech, Associate Curator-in-charge

An important step forward in Conservation in Canada, as a result of the initiative taken by members of the department and supported by Mr. H.B. Burnham and Dr. N. Stolow (Director, Canadian Conservation Institute), was the successful inauguration of a Canadian group of the International Institute for Conservation (I.I.C.).

The staff complement remained at ten, augmented by museology students, interns, technicians and volunteers and rising at times to fifteen. The long-awaited move of paintings conservation to Canadiana was finally achieved and Mrs. Phillimore soon had matters smoothly organized. Space liberated by this move was given over to establishing a modicum of textile conservation.

High priorities attached to both paper and textiles conservation, coupled with the use of the darkroom for non-photographic purposes, has meant the temporary discontinuance of the use of the spectrograph. Rebuilding of this area is planned so that paper and textiles conservation can proceed, uninterrupted by photographic activities.

More liaison with Art and Archaeology department technicians has been possible, and given the potential of a training centre it is hoped that technicians may be more formally trained in appropriate conservation techniques.

Many visitors have toured the Department such as groups of students from the Rochester and Buffalo campuses of New York University, *ROMarama* guests and members of the Art Gallery of Hamilton touring group. Consultations with the public have again increased to between thirty and forty per week.

Research

The technical study of the Chinese Bronze weapons has been pursued by Dr. Franklin to whom we are continually indebted for help and advice. The final chemical composition of six hundred weapons will depend on the spectrograph being brought back into use once the darkroom situation has been improved. A series of replicate samples will have to be analysed before any firm conclusions may be drawn.

Cooperation with other institutions continues, and valuable results were obtained by thermo-luminescence at the Research Laboratory for Archaeology and the History of Art, Oxford and by carbon dating from Ryerson Polytechnical Institute.

Simple macro- and micro-chemical analyses and identifications have been possible and we extend our thanks to Mineralogy for the use of X-ray diffraction and fluorescence facilities and for their help in many investigations.

Galleries and Storage Areas

Records of temperature, humidity and lighting have again confirmed the degree and partial extent of the problems facing us in terms of the full and appropriate control of macro- and micro-climate surrounding objects.

Fumigation in ethnology and textile storage is holding problems in check. Incoming shipments of material for various departments has shown that routine fumigation is vital in order to prevent possible re-infestation of collections.

Conservation Laboratories

A steady flow of work is reported with two major object treatments being involved: the consolidation, repair and restoration of a carved pine statue of the Madonna by Jobin from Quebec, and the temporary treatment and mounting of the ancestor portrait on silk, Ming period, from the Far Eastern collection.

Egyptian Department

Dr. Nicholas B. Millet,
Associate Curator-in-charge

Some 1400 objects are recorded as having received treatment.

Mrs. E. Phillimore cleaned and treated for cupping and relining a newly acquired Kreighoff entitled "Last of the Mohicans" as well as cleaning a painting by Heriot dated 1838 entitled "Northwest part of city of Quebec taken from St. Charles river" which subsequently has been made available as a print.

Mrs. Carol Jack successfully treated a steady stream of metal antiquities especially from Far Eastern and completed an exhaustive survey of West Asian bronzes as to condition, required treatments and storage recommendations.

Mark Burnham prepared many smaller textiles for exhibition, as well as washing larger items during July of last year on Manitoulin Island.

George Pawlick who had earlier received instruction from us in ceramics conservation and who had been working for Dr. Pendergast joined the Department as assistant conservator. Together with Mrs. Phillimore, Dr. F.J. Wicks and the associate curator, he took part in the course "Ceramics for the Collector."

Miss Eva Silberberg joined the Department as secretary after studies at York University. She now has all the documentation and records firmly under control.

Bob McCarroll transferred from the ROM library to this Department as a junior technician. One of his tasks has been to reorganize the record-keeping system pertaining to objects and this is almost complete.

Jim Chalmers who has been "senior man" in room 55, has had, as usual, a varied year, ranging from the manufacture of replicas to the treatment of polychromes, arranging fumigation of objects and the cleaning and cold storage of fur and skin garments.

Lectures and Travel
A significant increase in lectures given by members of the Department is noted, with papers given in the ROM lecture series and a number of international conferences. Of special note was David Dudley's paper presented to ICOM in Madrid entitled "Problems in the Conservation of Oriental Paintings."

Pair of brass candle sconces, 18th century European, after cleaning with (left to right) boiling water and naphtha, sodium hexametaphosphate, alkaline glycerol, and buffered citric acid.

The year's activities in the Egyptian Department have been dominated by two connected events; the first was the removal of the Departmental offices and reserve collections to new quarters in the Canadiana building, the second the arrival, unpacking, and putting away of a vast collection of new material excavated in Egyptian Nubia in 1962-66. Together these two events have accounted for most of the staff's time and energy during the last twelve months.

New Quarters
The new quarters in the Canadiana building are proving most satisfactory, comfortably accommodating as they do an increased staff, space for students and visiting scholars, and providing library shelf and reading space for the Egyptological section of the ROM library, which has had to be moved to Canadiana for convenience.

Material from Nubia
The Nubian material is the result of four years' work by Dr. Millet at Adda, an ancient hill-fort in Egyptian Nubia not far from the present Sudanese frontier, under the auspices of the American Research Centre in Egypt, Inc., with funds granted by the Smithsonian Foreign Currency Program for Archaeology and Related Sciences, and the National Geographic Society. The Society last year graciously consented to the transfer to the ROM of the approximately four thousand objects, but its arrival was delayed by the necessity of fitting out a new storage space in the Canadiana building and of transferring to the new storage area of the Department's existing reserve collections. On its arrival in May, the material was taken in hand by Mr. Allyn Kelley, research assistant, and Mr. Alan Hollett, the Department's new technician, replacing Mr. Nick Wasiliw, who resigned for personal reasons in April. The material is now being unpacked, sorted, repaired and shelved by the staff members mentioned, with the help fo Miss Janet Lautenschlager.

Research and Lectures
Dr. Millet and Mr. A.J. Mills, the new assistant curator, are both pursuing their researches on the archaeology and history of ancient Nubia. Mr. Mills is preparing a publication on the excavation of the ancient cemeteries of Ibrim. Dr. Millet is preparing the publication of the Meroitic texts from that site, as well as the larger group from Adda. Both curators now hold cross-appointments in the Department of Near Eastern Studies in the University of Toronto, and have been teaching graduate and undergraduate courses in Egyptian archaeology. Mr. Mills also taught a semester course on the archaeology of the Sudan, which Dr. Millet complemented with a course on the Meroitic language, which is thus being taught for the first time in the Western Hemisphere.

In June 1972 Dr. Millet gave a paper by invitation at the International Conference for Meroitic Studies at Paris. In March the Department sponsored a lecture by Professor Ahmed Fakhry, the distinguished Egyptian Egyptologist, who spoke on his discoveries in the Oases.

Department of Ethnology

Dr. E.S. Rogers, Curator

Mr. Allyn Kelley, in addition to his main task of dealing with the Adda material, is also compiling a corpus of Egyptian pottery for the use of the Department, students, and visitors. Mrs. Annette Gromow, departmental secretary, has not only worked on departmental records but has also done much book ordering and the necessary work on departmental library records. Mrs. Loeta Tyree, our volunteer, has also been of much service on location records and helped with the re-storage of the reserve collections.

One of this year's purchases, the painted floor board of an Egyptian coffin, dating to about 1000 B.C. The main figure, somewhat retouched in Victorian times, represents the goddess Nephthys, who welcomes the dead person to the Afterworld.

The Department of Ethnology has continued its operation much as it has in the past few years. It has, however, been called upon for more and more services than ever before. The requests of Government and the Native People have notably increased.

Gifts, Purchases and Loans

Eighty-seven gifts have been received by the Department, including North American Indian, Eskimo and African material. Among them was a very early Iroquois beaded pouch, a collection of Early Plains beadwork and a collection of North African jewellery.

Purchases were mainly of contemporary Ojibwa painters such as Jackson Beardy, Josh Kakegamick, Saul Williams, Roy Thomas, Francis Kagige, John Laford and Frank Meawasin. Dr. Zdenka Volavkova, Research Associate in the Department, on a field trip to Africa purchased for the Department 14 items including a woven rafia mask and costume worn by the guard of the Pende Initiation Camp.

Fourteen loans were made during the year to various institutions: libraries, art galleries and museums. An exhibition of early Congo material of considerable interest was mounted at York University by Dr. Volavkova and a catalogue prepared by her of the exhibition.

The Department of Indian Affairs has provided the ROM with a grant to produce a special exhibition on contemporary Indian Arts and Crafts, to open in June, 1974. The department also loaned the services of Tom Hill to coordinate the exhibition.

The collections were being utilized more and more by universities as an aid in teaching. Erindale College set up a course in technology using artifacts from the Department as teaching materials. During the year several students in an art history course at York University came in weekly to study objects at first hand and write papers on the material. Two students from Lakehead University spent a week in the Department and were given guidance by Mrs. Wood in learning about the comparative cultures of the North Pacific Coast, Plains, Subarctic and Woodland areas of Canada.

Mrs. Wood supervised all of these duties assisted by her staff and also saw to the cataloguing and identification of objects for the public. Nearly 150 specimens were processed and nearly as many examined and identified for the public.

Teaching, Lectures and Consultations

Mr. Johnston taught one course entitled Indian History each Friday during the academic year for the Social Guidance Education Program, Faculty of Education,

University of Toronto. He also conducted a weekly class for a small group of individuals in the Ojibwa Language, and gave lectures and talks on Indian history and language to various colleges and universities and to audiences in a number of towns and cities within the Province.

The Curator continued his cross-appointment to McMaster University, teaching one seminar on the History and Contemporary Situation of the Canadian Indians.

In October, Mrs. Wood attended by invitation an opening of an exhibition of African sculpture at the Winnipeg Art Gallery and visited the Museum of Man and Nature. Dr. Taylor attended the 40th International Congress of Americanistes in Rome during September.

Dr. Fuchs attended the First International Meeting of Hygiene, Preventive and Social Medicine in Vienna during October and presented a paper. In November, he served as moderator at the 23rd International Congress of Sociology in Caracas, Venezuela where he also delivered a paper. In May, he chaired the session "Pre-Columbian Cities" for Latin American Studies at the Annual Meeting of the Canadian Sociological and Anthropological Association held in Kingston, Ontario.

The Curator and Mr. Johnston attended the American Anthropological Association meetings held in Toronto in November and both participated on the panel in the session entitled "Museums, Ethnologists and Indians."

The Curator was asked to present a paper at the 40th International Congress of Americanistes in Rome, Italy in September but was unable to attend. The paper was prepared in joint authorship with Mrs. Jean Shawana and was presented by Dr. Garth Taylor. In March, he attended by invitation the Anthropology Caucus of the Canadian Sociological and Anthropological Association held in Montreal to determine the feasibility of establishing a separate ethnological association in Canada. In May, he acted as a panelist in a session devoted to museums and ethnologists held in Ottawa by the Canadian Museums Association.

Dr. Fuchs was elected a member of the Executive Committee of the First International Conference on Human Ecology.

The Curator continued to serve on the Northern Studies Group, Environmental Centre, University of Toronto and the President's Committee at McMaster University for Better Educational Opportunities. He was asked and agreed to serve on the Minister's Advisory Board for the Ministry of Natural Resources. He continues to serve on the Planning Committee for Volume VI, The Subarctic, in the Handbook of North American Indian Series of the Smithsonian Institution.

Members of the Department of Ethnology continue to serve in a consultative capacity for the public, business and government. Mrs. Wood has been much involved in this work, it taking up a considerable amount of her time.

Museumobile

The museumobile has been very successful as indicated by the most positive statements made by the Native people. They have made a number of constructive suggestions as to its improvement but at the same time have requested that it return this coming year to their communities. The St. Regis Reserve in fact would like to implement one of their own. Mr. Tom McCue of Georgina Island came on staff in September as driver-lecturer for the bus. The Department of Indian Affairs kindly supplied an on-the-job training grant to pay his salary and some travel expenses. The Museumobile has been on the road almost continuously since October 18th.

The Museumobile has visited approximately 16 reserves and 34 schools. In the neighbourhood of 7,000 people have toured the bus and it has travelled approximately 4,000 miles.

Not only does the Museumobile contain displays, it also has available films and slides. These have been utilized by the Native communities for special programmes often during the evening for educational purposes where these have fitted into on-going programmes such as adult retraining and craft work.

Field Work, Research and Publication

Dr. Fuchs continues his research as in the past on the quantification of ethnographic data in northern South America.

Dr. Taylor last summer spent approximately a month undertaking field work at Webiquie in northern Ontario. This work was sponsored by the Ontario Ministry of Natural Resources in cooperation with the ROM. In April, Dr. Taylor carried out archival research in Paris at the Bibliotheque Nationale and Archives Nationales. This study, supported by the ROM, was designed to elicit information on the early 18th century Eskimos of southern Labrador from the unpublished accounts of French explorers and fishermen. In addition, he has recently received from Czechoslovakia micro-film copies of the archival material relating to the Moravian missions in Labrador during the late 1700s. The monograph "Netsilik Eskimo Material Culture: The Roland Amundsen Collection from King William Island" based on the collections in the University Ethnographical Museum, Oslo, Norway, is the culmination of the work Dr. Taylor undertook there last year. They now have secured the funds for the publication of this volume.

European Department

Heribert Hickl-Szabo, Curator

Dr. Volavkova, research associate, is making a study and preparing a volume on African art based on the materials in the collections.

Dr. T.A. Steegmann of the University of Buffalo, a research associate in the Department, has been awarded a grant from the National Science Foundation, Washington, D.C. to conduct a physical anthropological study and ethnological investigation of the people of the Severn Drainage, Northern Ontario, in cooperation with Dr. Mary Black, research associate in the Department, who is continuing her study of the Round Lake Ojibwa.

Finally, a new publication series, ROM Ethnography, has been initiated and the first volume by Dr. S.M. Mead of McMaster University entitled "Material Culture and Art in the Star Harbour Region, Eastern Solomon Islands" is in press.

Three notable exhibitions in the Department's activities this year were *Oriental Rugs, Campbell Soup Tureens* and the *Starr Collection of Portrait Miniatures*. The latter appears to have aroused new interest in the art of the miniature. Because of it the Museum has received offers of several as gifts or purchases. The Department also inaugurated a new programme of loan exhibitions to other institutions in Ontario with an exhibit of porcelain in the Bracebridge public library. The exhibit will be changed every three months. With an eye to the future, the Curator visited Europe to negotiate loan exhibitions from Poland and from one of the great houses of Germany. The negotiations are not yet concluded.

Within the galleries, Mrs. Bacso and Mr. Cselenyi have supervised the construction of a new gallery for clocks, watches, icons, graphics and illuminated manuscripts. Mrs. Bacso has also rearranged many of the cases of English ceramics. Meanwhile, although hampered by lack of study and storage space, Mr. Keeble has continued his work on the Armour Gallery.

Research and Lectures

All members of the staff have been engaged in considerable research: the Curator, for a gallery guide to continental glass; Mrs. Bacso, on English transfer-printed earthenwares; Mr. Cselenyi on the print collection, rare musical scores and two recently acquired capitals. Mr. Keeble has worked on a wide range of European art including porcelain sculpture, bronzes, tin-glazed earthenware, while Miss Campbell had identified a collection of rare coins.

Similarly, the staff has been busy with lectures. Together, the Curator and Mrs. Bacso gave a series of 35 lectures on the Applied Arts in Europe to 4th year U. of T. students. The Curator also lectured outside the Museum on antique collecting while Mrs. Bacso lectured in Winnipeg and at George Brown College. Inside the Museum Mr. Keeble lectured frequently on the work of the Department and also gave a number of public lectures. Mr. Cselenyi also found himself in demand outside the Museum. He acted as consultant to McMaster University's Department of Fine Arts and to the Kitchener-Waterloo Gallery, and collaborated with scholars at Yale University Art Gallery and the Max Planck Institute in Germany.

Among its many voluntary services to the public, the staff identified some 635 objects under the Museum's Identification programme.

We welcome to the staff Peter Kaellgren and Mrs. Jayne Needham. We must also record with sadness the death of George Deronov who was for a number of years a valued technician in the department.

Gifts and Purchases

Among the year's accessions were three sketchbooks of the Russo-Japanese War, the gift of Mr. R.B.F. Barr, a pair of 17th century wax reliefs on slate from Mr. Ian Ross, two eye miniatures, the gift of Mr. and Mrs. John W. Starr; three fine clocks, the gift of Dr. Morton Shulman. All our benefactors, to whom we are deeply grateful, will be found in the Appendices to the Annual Report. Purchases included an Italian bronze figure of Peace attributed to Giulo del Moro, about 1590.

Miniature on ivory, portrait of Anne Woodruffe Guidott by John Smart, 1778 (972-500.1)

Far Eastern Department

Dr. Hsio-Yen Shih, Curator

During a busy year, two new gallery installations were opened, leaving only the gallery of early Bronze Age material and the Sung ceramics gallery awaiting resolution of some design problems before their completion. The new gallery of Chinese Furniture was honoured by a special occasion sponsored by the Bishop White Fund. "An Evening with Chinese Furniture" began with a lecture by Mr. Robert Ellsworth of New York, followed by a Chinese banquet for some 140 sponsors of the Fund. The gallery of Folk Arts was also opened, displaying ceramics selected and installed by Mrs. Proctor, musical instruments selected by Mr. Wylie, and a case of theatrical garments prepared by Mr. Vollmer (Textile Department).

Exhibitions

After completion of its Ontario tour Mr. Wylie accompanied the exhibition *Chinese Jades* on a tour of the eastern Arctic sponsored by the Department of Indian Affairs and Northern Development, to which the ROM expresses its gratitude. During October and November the show made stops at Frobisher Bay, Pangnirtung, Cape Dorset, Pond Inlet, and Resolute Bay. In addition to travelling with the exhibition Mr. Wylie was responsible for unloading, mounting, packing, and reloading the cases, as well as lecturing on Chinese culture to both school and adult groups.

Japanese Art from the Art Gallery of Greater Victoria (B.C.) was shown at the ROM in December and January. Mr. Vollmer, now of the Textile Department, was primarily responsible for the exhibition's installation, the culmination of a project begun while he was a member of the Far Eastern Department some years earlier. The catalogue was jointly written by Mr. Vollmer and Professor Glenn T. Webb, who was aided by his students at the Center for Asian Art, University of Washington, Seattle.

Chinese Art from the ROM was organized by the Far Eastern Department, whose staff members all contributed to its organization. Curatorial members of the Department were the main contributors to the catalogue.

Both the Victoria and ROM exhibitions were exhibited at the Montreal Museum of Fine Arts between March and April of 1973. The ROM exhibition then proceeded to the Art Gallery of Greater Victoria for its display in May. The Canada Council twice provided grants for organizing and

Bamboos and Rocks: Japanese screen painted in the 1760's by Ikeno Taiga (972.247)

mounting these exhibitions, and for publication of the two catalogues undertaken by the ROM. We express our gratitude for these and many previous instances of support.

The Department lent 12 Chinese religious objects to an exhibition of *Religious Art and Literature* at Carleton University, Ottawa, in March of 1973. Mr. Wylie selected and arranged for this loan. Mrs. Proctor coordinated a loan of 17 objects from the ROM to *Ceramics in the Liao Dynasty*—North and South of the Great Wall, an exhibition held at the China Institute in America in the spring of 1973. The exhibition was organized and its catalogue written by Mr. Yutaka Mino, now a graduate student at Harvard University, who began work on the exhibition while a staff member of the Far Eastern Department.

The Department was also responsible for a display of Qing porcelains in the outside show cases during the winter of 1972; Chinese cloisonné in the case in the Members' Lounge; Chinese overglaze enamelled porcelains in the Restaurant cases; and Chinese rock crystal and glass in the Royal Bank Exhibition during the summer of 1973.

The Museum's garden in Chinese style, a special concern of the Department, benefited this year from contributions of plant materials and expertise from Miss Minerva Castle, Rowancroft Gardens, Meadowvale, Professor and Mrs. Tuzo Wilson of Erindale College, and Dr. Henry Landis, Department of the Environment. The Bishop White Fund gave additional aid for the acquisition of 17 varieties of tree peonies.

Research, Teaching and Lectures

Continuing cross-appointments in the Department of East Asian Studies were held by Miss Shih, Mrs. Stephen and Miss Dohrenwend. Miss Shih gave a graduate seminar on Chinese Buddhist Art; Mrs. Stephen held a graduate seminar on Chinese Ceramic History; and Mrs. Stephen and Miss Dohrenwend gave lectures in an undergraduate course introducing the "Visual and Performing Arts of Asia." During the winter quarter Miss Dohrenwend was on leave to teach in the Department of Art, University of California at Berkeley.

Two ROM extension courses were given during the year. "How to see China" included contributions by Miss Dohrenwend, Mrs. Proctor, Miss Shih, Mrs. Stephen, and Professor C. Stevens, Department of East Asian Studies, University of Toronto. Miss Shih organized "Buddhist Art", which also had contributions by Mmes Meredith and Proctor, as well as by Radhika Herzberger and Shoryu Katsura, Department of Sanskrit and Indian Studies, University of Toronto.

The Bishop White Fund continued its active lecture programme. The series "Introduction to Japanese Art" included talks by Mrs. Edgar J. Stone (Chairman of the Fund Committee), David Pepper (Display Biology), John Vollmer (Textiles) and four members of this Department. "Introducing the Chinese Collection" was offered twice by members of the Fund Committee.

Miss Dohrenwend, Mrs. Proctor, and Miss Shih gave outside lectures to a number of groups. Mrs. Stephen was invited to read a paper on "Technology and Change in Shang China" at the annual meeting of the Association for Asian Studies.

Mr. Hsü completed the second volume of *The Menzies Collection of Shang Dynasty Oracle Bones*. Support through a Canada Council Doctoral Research Grant enabled him to plan a trip to Eastern Asia for further research on the use of chiselled hollows in dating oracle bones.

All Department members continue in their various fields of research: Miss Dohrenwend on Chinese jades and Chinese bronze mirrors, Mrs. Proctor on Sung Dynasty Chinese ceramics as well as Japanese and South-east Asian ceramics and Mr. Wylie on Japanese art. Mrs. Stephen continues work on Chinese bronzes, especially materials technology, with the assistance of Mrs. Irwin. Miss Shih continues research on Chinese and Japanese painting and aesthetic theory.

Far Eastern Library

Library holdings now total 12,937 volumes of books, pamphlets and periodicals. During the year 585 volumes of books, 129 pamphlets, and 123 volumes of periodicals were received while 53 volumes of books, 4 pamphlets and 18 volumes of periodicals were withdrawn. A total of 938 titles were catalogued and 47 titles were recatalogued. Two major innovations have been introduced. Chinese and Japanese character cataloguing is now being done, and romanization of Chinese sounds has been changed to the *pin-yin* system for all Departmental purposes.

Gifts and Purchases

A major acquisition during the year was a Japanese four-fold screen by Ikeno Taiga (1723-1776), of bamboo and rocks, done in ink on paper. The screen has been remounted from original *fusuma* panels.

The Department is grateful to donors of a number of objects to the Far Eastern collections, which are included in the Appendices (page 73).

Greek and Roman Department

Neda Leipen, Curator

The year can best be described as one of outward-directed activities, both scholarly and popular, promoting the resources of the Department and ultimately those of the Museum itself: all three curatorial members of the Department and its Research Associates took part in preparing and presenting talks, lectures, papers, courses and exhibitions, all based on, or closely involving, the material from the collections.

Lectures and Teaching

At the Annual Meetings of the Archaeological Institute of America held in Philadelphia, Dec. 28-30, the Curator read a paper on "A Rare Roman Terracotta Portrait" while Dr. John Hayes, Assistant Curator, spoke on "Roman Inscribed Lamps" and moderated a specialist seminar on Roman pottery. During the year, the Curator lectured on "Athena Parthenos—Facts and Myth" as guest lecturer at the Department of Classics, Waterloo-Lutheran University, on "Dance in Ancient Greece" to the ROM Members' Committee (a repeat of last year's presentation to the ROM Youth Club, teachers and guests), and on "The Greek and Roman Collections" to the Museum Guards Training Programme. Dr. J.S. Wilkinson, Research Associate, gave illustrated talks with particular emphasis on our collection of Greek and Roman coinage to: the Toronto Branch of the Israeli Numismatic Society; the Chedoke Society of Numismatists, Hamilton; the Optimist Club of Toronto; the Ancient Coin Society, Toronto; the Touring Group of the ROM Members' Committee (whom he presented with a specially prepared 3,750-word summary concerning the new installation—1972—of Greek coinage at the Museum).

The Department gave an ROM Extension Course on "Creations in Clay," held and demonstrated in the Greek and Roman galleries and the departmental seminar/study room. The six sessions lasting through February and March were divided so that the Curator concentrated on the practical and artistic use of clay with particular emphasis on votive terracotta sculpture from Bronze Age to Late Roman times, Dr. Hayes on pottery in general and Mrs. Alison Easson, Assistant Curator, on pottery and clay products from Roman Britain. This course is to be repeated in 1974 as part of the University of Toronto Extension Programme. The Curator again taught a course on Greek Terracottas to a University of Toronto Fine Art class (FA 320).

Exhibitions, Commentaries, Identifications

A special exhibition entitled "Greek and Roman Life in Miniature" was mounted in the Third Floor Rotunda as part of the ROM Jubilee Year celebrations. Religion, Social life, Athletics, War, and other aspects of daily life were illustrated by vase paintings, terracotta figurines, gem engravings and sculpture from the collections with descriptive summaries prepared by the Curator and Mrs. Easson.

The Curator prepared the commentary for a short television documentary on the Greek Sculpture Court at the Museum for an experimental closed circuit project, initiated by Museology Department, and shown in the Museum Rotunda. She also appeared in a segment of the CBC-TV programme Telescope dealing with the ROM.

In yet another "outward-directed" activity, the Curator, Dr. Wilkinson and Dr. Hayes took part in Greek and Roman Identification Night held in the galleries, and identified a variety of objects brought in by members of the public.

Tombstone of a woman, from El Bahnasa (ancient Oxyrhynchus), Egypt. Limestone with painted decoration. Roman, second century A.D.

Philatelic Activities

Douglas Patrick, Honorary Curator

Publications
Mrs. Easson prepared an article for *Rotunda* as an introduction to the history of Greek coinage. She was invited to contribute an article (in press) for *Durobrivae*, a forthcoming new archaeological journal in Britain, on an exceptional 'hunt cup' in our Romano-British collection. Dr. Hayes brought to a close his work on the catalogue of Roman pottery in the ROM and has handed the manuscript over to the Art and Archaeology Editorial Board.

Research at Home and Abroad
During part of the summer, Dr. Hayes worked at the Roman Villa at Knossos cataloguing pottery from the site. As in previous seasons he also worked at St. Polyeuktos, Istanbul (under the auspices of the Dumbarton Oaks, Washington) cataloguing pottery from the Late Roman/Early Byzantine site. Mrs. Easson undertook a brief but intense study tour to Athens, Corinth, Mycenae, Epidaurus and Delphi. The Curator studied Greek and Roman sculpture collections in New York, Boston, Princeton and Philadelphia.

The members of the Department continued research in their particular fields of interest. The Curator is proceeding with her study of Greek and Roman sculpture in the ROM in preparation for publication. Mrs. Easson continued her research on aspects of ancient numismatics and the Romano-British collection, and prepared publications (in press) in both of these areas. Dr. Hayes did further work on the Early Italian and Etruscan material with accompanying modifications in gallery displays. Through the additional assistance of Lloyd Bregman, under Mrs. Easson's direction and supervision, the large collection of bronze coinage of Constantine the Great and his family was sorted and classified by types. Dr. Wilkinson continued cataloguing the Roman Imperial coinage.

The Departmental Secretary Mrs. J. McCormick had temporary help in the person of Cathie Twiss, a graduate student of Classics, who looked after the slide collection and performed a number of other chores. We are indebted to the ROM Members' Committee volunteer Mrs.D. Shaw for her regular services in filing and indexing off-prints, dealers' catalogues, etc., and for mounting and filing photographs and other visual material. The Preparators and Display General helped us in maintaining the galleries and preparing new exhibits.

The collections were augmented by a number of significant acquisitions which are listed in the Appendices (page 73).

The 1972-73 season continues in a successful way with excellent displays borrowed from Canadian stamp collectors and two outstanding gifts of stamps of Canada and France.

A 1972 exhibit of Canadian rare envelopes bearing stamps (known as covers) attracted Mrs. J.I. Gordon of Niagara-on-the-Lake. One letter of 100 years ago had been mailed to Mrs. Burns in St. Thomas, Ontario, one of her father's cousins and the grandparents of General E.L.M. Burns. Stamps bring people and events together, according to Mrs. Gordon.

When the Royal Astronomical Society of Canada held an exhibition of their materials in the lower rotunda, one member of the Society, John Morriss lent selected pages from his stamp collection of space topics. One display complemented the other.

The most popular loan exhibit in the year consisted of 48 pages of stamps featuring women. Betty Killingbeck of Peterborough, Ontario built this nationally know prize winner, and lent it for display at the ROM stamp area.

Mrs. Barwick of Ottawa and Mrs. W.S. Jenkins of Toronto donated thousands of stamps to me so that I could select materials for the ROM collections. This involves a tremendous sorting job that is still in progress. The balance will go to Michael Madesker, amateur philatelist and director of junior activities in Canada for the Royal Philatelic Society of Canada.

Textile Department

Katharine B. Brett, Curator

The death of Harold B. Burnham, Curator of the Textile Department, on May 12 was a grievous loss to the Department, the Museum and to the whole field of historic textiles. His deep and broad knowledge of the subject established him as a leading authority with a world-wide reputation. His academic ability and his talent for administration earned him respect within the Museum and his warm understanding won devotion in his Department.

Exhibitions and Publications

The main activities of the curatorial staff have been exhibitions and related publications, research for exhibitions in each curator's various fields, and cataloguing of about 900 gifts and purchases which have been acquired during the year.

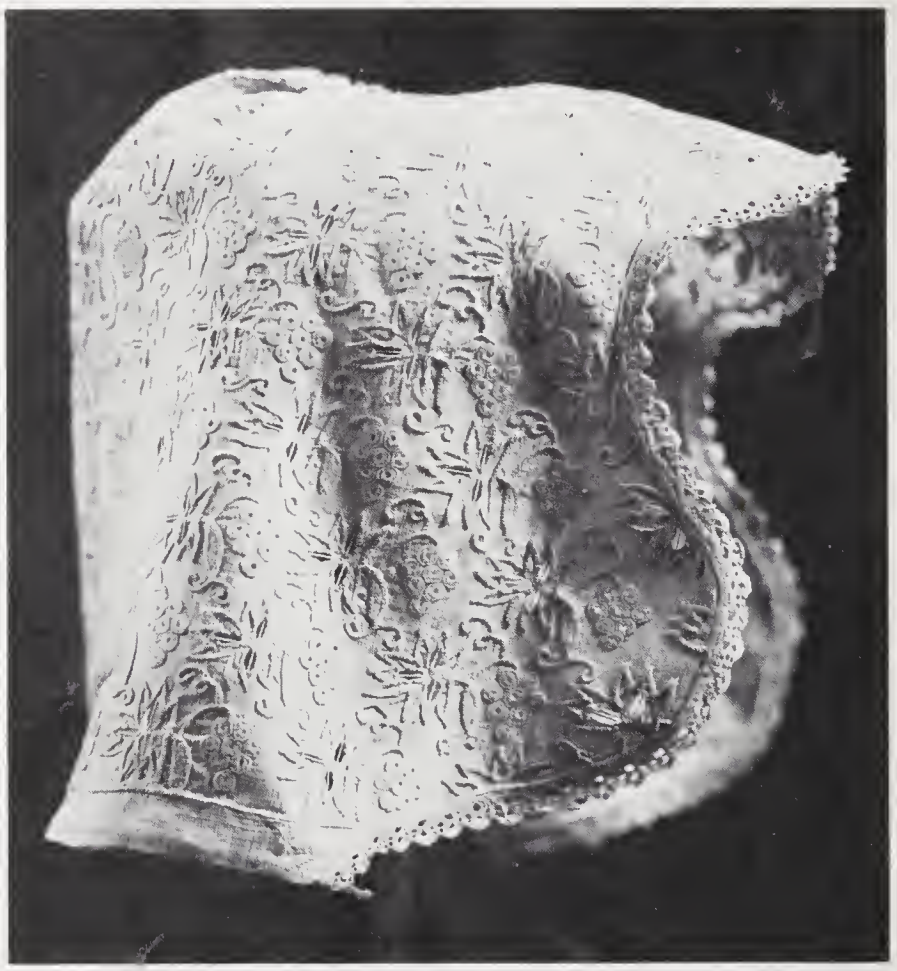
Keep Me Warm One Night: early handweaving in Eastern Canada, a large book, written by Harold and Dorothy Burnham, was published in November and was the culmination of years of intensive research. Coincidentally a condensed version of the exhibition by the same name, with the sub-title "Encore," was displayed by them in the Department's special exhibition gallery and two adjoining galleries.

The handsome special exhibition, *Japanese Art*, comprised of material loaned by the Art Gallery of Greater Victoria was designed by Mr. Vollmer with John Anthony. This exhibition, which then travelled to Montreal, celebrated the first major publication of this recently formed Oriental collection. Its catalogue, *Japanese Art at the Art Gallery of Greater Victoria* was written by Mr. Vollmer and Dr. Glenn T. Webb, of the University of Washington. Mr. Vollmer attended the opening in Montreal.

During the summer a display of Estonian textiles and costume was held in the Department's special exhibition gallery. It was put on by Mr. and Mrs. Burnham with the helpful assistance of Mrs. E. Runge, and was planned to coincide with the Estonian World Congress. An opening party, at which Mr. Burnham and Estonian representatives spoke, was a great success. Hundreds of Estonians from many parts of the world visited the exhibition. Following the annual exhibition of a selection of important recent accessions, a display of our growing collection of *ikat* fabrics was arranged by Mr. Vollmer. The Museum's important collection of 18th century costume was displayed in the costume gallery during the summer by Mrs. Brett who was also responsible for the rotating fashion costume displays. Mr. Vollmer meanwhile rotated textile and costume displays in the Far Eastern galleries.

The major project of the year was the spectacular exhibition *Cut My Cote: traditional garments and their construction*. It was conceived by Mr. Burnham, with Mr. Vollmer in charge. Mr. Vollmer, Dr. Veronika Gervers and Mrs. Burnham designed the show and were responsible for the extensive research that went into it.

Two publications were brought out in connection with the exhibition. The booklet, *Cut My Cote* which accompanied the exhibition, was written by Mrs. Burnham who also did the pattern drafts. It is a well illustrated and informative introduction to the basic principles of traditional garment construction on which the exhibition was based. *The Hungarian Szur: An Archaic Mantle of of Eurasian Origin*, a monograph, was written by Dr. Gervers, with many pattern drafts by her.



Woman's embroidered coif, English, about 1600. Gift of Mr. and Mrs. Edgar J. Stone in memory of Harold B. Burnham.

Man's embroidered housecap. French, about 1700. Gift of Mr. and Mrs. Edgar J. Stone in memory of Harold B. Burnham.

West Asian Department

Dr. T. Cuyler Young, Jr., Curator

Research
While in England to see the Alexander Collection of European and Eastern textiles which was offered to the Museum, Mr. Burnham went to Norwich to continue his researches in Norwich shawls. In the spring Mrs. Brett visited museums and archives in Winnipeg, Calgary, and Edmonton as part of her researches into clothing worn in Canada.

In the summer of 1972 Dr. Gervers returned to Turkey to continue her study of textiles and costume, and commence research on traditional felt-making in Anatolia. While there and returning through Greece, Yugoslavia and Hungary she collected a number of significant textiles for the Museum's collection.

Mr. Vollmer's researches covered many much needed areas in both Far Eastern and Western textiles. He was of the greatest help in both administrative and research areas during Mr. Burnham's illness.

Care of the Collections
The preservation of our collections lies in care, protection, and conservation. But it is difficult to handle large pieces within the Museum. In July 1972, Mrs. D. Bruce Macdonald, a former member of the Museum staff and wife of a past chairman of the Board, lent her cottage with extensive lawns to Mr. Burnham so that he with Mark Burnham, assistant conservator of textiles, would undertake much needed washing of large fragile textiles. Over 200 pieces were cleaned.

Within the Department Mrs. Zuppinger has been responsible throughout the year for the time-consuming task of fine sewing required for mounting fragile textiles for exhibition and conservation. Mrs. Cselenyi was responsible for the sewing on of accession numbers required for each of the many items that came into the Department and for the catalogue card files as well as sewing and the careful pressing of material for exhibitions. In November Miss Eva Stahli joined the department on a part-time basis to assist in our conservation programme.

Lectures
The usual series of lectures were given to students of the University of Toronto and the Ryerson Polytechnical Institute, by many members of the staff. Mrs. Holford also gave short survey courses to Seneca and Sheridan Colleges. Mrs. Brett, Dr. Gervers and Mr. Vollmer were invited to give lectures to various organizations of textiles and costumes in their own particular fields.

Gifts and Purchases
Many of the collections have grown during the past year due to purchases and generous gifts, included in the Appendices (page 73). We extend our very deep gratitude to the 176 individual donors, for it is largely their interest and generosity which made the Museum's extensive collection of textiles possible.

July 1972 found the West Asian Department fairly well settled into its new quarters in the Canadiana Building, and we would like to feel that our enjoyment of these improved physical facilities is reflected in the Department's increased activity over the year.

The Collections
In some respects we continue to be frustrated in our efforts to purchase materials for the collection by the ever higher prices asked for objects these days. Still, several significant additions were made to the collection in the Islamic field, most notably a fine miniature painting and a rare bronze cat of the 12th century, both bought at auction. Perhaps the most important addition to our holdings, however, is a permanent loan from the University Museum and the Art Museum of Philadelphia of a major collection of Sassanian stucco decoration. Not only are these objects artistically and historically significant but they are documented material from scientific excavations at the ancient city of Rayy in Iran.

Gallery Work
Only minor work was undertaken in the galleries this year. Several recent acquisitions went on display in the Islamic gallery, and a few small alterations were made in the Palestine and Mesopotamian galleries. Plans were advanced, however, for a major rotation of materials in the Islamic gallery and for reinstallation of the Palestine gallery. In November a small special exhibition on the Department's field work in Iran involving Islamic, Sassanian, early historic and prehistoric sites was hung in the third floor rotunda.

Field Work and Research
In May the Godin Project Excavations left once again for Iran, generously supported financially by the Canada Council and using other monies supplied by the Ford Foundation and Yale University. This activity involves four regular members of the Department, Breede, Levine, Mitchell and Young, in the field. The project represents not only one of our major research efforts, but also is our principal means of acquisition for the pre-Islamic collection.

Dr. Golombek has continued with her research on Timurid architecture and on Islamic metal work. The latter effort is closely related to the growing collections in this category of object.

Dr. Keall reports that he anticipates the final excavation report on the great Parthian palace at Nippur in Iraq, on which he has been working for some little time, going to press within the next year. He has also laid plans for a preliminary season of field work at the Sassanian site of Qaleh-i Yazdigird, which is to take place in the autumn of 1973.

Leaf from the Shahnameh of Firdawsi—Persian c. 1550-60, (973.27)

The McLaughlin Planetarium

Dr. H.C. King, Curator

Lectures, Conferences and Teaching
All four curatorial staff members read invited papers at the Sixth International Congress of Iranian Art and Archaeology held in Oxford, England in September. The Department as a whole was also invited to organize and present a symposium on Iran and neighbouring cultures under the sponsorship of the Near East Center of the University of Michigan. The curatorial staff members went to Ann Arbor for three days, during which each gave a formal lecture on his or her own area of research and collectively we conducted a seminar and discussion on the theme which tied the lectures together.

Drs. Golombek and Keall also attended a conference in New York on Sassanian silver. Drs. Levine and Young attended the meetings of the American Oriental Society in Washington, D.C. At these and on other occasions the curatorial staff delivered a total of 22 scholarly papers or public lectures of an academic nature. Dr. Levine also found time to address himself to a half dozen less academic groups including seventh, fourth and first grade students. Dr. Young made seven appearances on the CBC television programme, "What on Earth."

With one degree of intensity or another we were involved in four undergraduate courses, six graduate courses and directing a PhD dissertation in three departments of the University of Toronto. Student activity with the collections involved the following projects: the typological coding and preparation for analysis of some 10,000 pot sherds from Godin Tepe by Maria Miller; the cataloguing and typing of materials from Tepe Sarab by Mary McDonald; the analysis of faunal materials from Seh Gabi by Isobel Heathcote; the preparation of a manuscript, accepted for publication, analyzing the Persian brass inlaid basin (ROM 970.268.5) by S. Campbell; and the reorganization of the Palestine collection by Margaret Cogzell.

Within the Museum Dr. Levine served as Chairman of the Art and Archaeology Curatorial Council and on three museum-wide committees. He was also Editor for the Canadian Society for Archaeology Abroad, a vice-president of the Association of Jewish Studies, and chaired the Academic Review Committee and was a member of the Board of the Canadian Foundation for Jewish Studies. Dr. Young served on three standing committees of the Museum and on one *ad hoc* committee of the Museum Board. He continued as secretary-treasurer of the Canadian Society for Archaeology Abroad and as a member of the Board of the American Institute of Iranian Studies.

In all of this activity the curatorial staff is ably supported by the other members of the Department staff. Mrs. Ronald Hart, our volunteer from the Members' Committee, cheerfully undertakes many dull tasks. Mr. Breede handles all drafting with a flair, Mr. Mitchell manages the care and feeding of the collection, and Mrs. Wang keeps us all on the track with the force of a train conductor and the grace of a lady.

The year saw a complete changeover in the Star Theatre from "live" to pre-recorded public shows. Until an experienced sound technician can be appointed Mr. R. Ballantyne agreed to add to his curatorial duties of researching material and writing scripts the responsibilities of selecting music, directing talent and producing final show tapes.

The introduction of pre-recorded public shows soon led to demands for more complex special effects, and therefore for more elaborate artwork, projector assemblies and projector control systems. The year has therefore seen a twofold increase in the capacity of the signal lines serving the Star Theatre, effected by Mr. F. Jessop and his staff, and the completion in the workshop of an automatic dimmer system for impressive sunrise/sunset effects. To ensure that the show commentaries attained the highest possible standard, frequent use was made of recorded narrations by George Finstad and John O'Leary. Also, to give the first show, "Denizens of Outer Space," a measure of topicality, Mr. Ballantyne arranged taped recordings of direct telephone interviews with five foremost scientists currently interested in the subject of extra-terrestrial life forms.

Imaginative ideas were also in evidence in the second public show, "Vagabonds in Space," devised by Dr. T. Clarke to introduce the lesser-known members of the solar system. Among other special effects was a rendezvous between a futuristic spacecraft and a large asteroid and reproductions of the display of Cyrillid meteors of February 9, 1913 and the appearance of Comet Halley during late February, 1910.

During December the Planetarium made its customary contribution to the Christmas season by presenting a revised version of "The Christmas Star." Early in January workmen began cleaning the painted surface of the projection dome, an operation that required closing the Theatre until the beginning of February but restored the dome to its original uniformly-white colour. The Theatre re-opened with "The Age of Copernicus," researched and written by Mr. N. Green to commemorate the 500th anniversary of the birth of Nicolaus Copernicus. Also in commemoration of this event the Canadian National Copernicus Committee and the Polish Millennium Foundation presented the Planetarium with an oil portrait, painted by Eugene Chruscicki of Toronto, of the great astronomer. "It's About Time," opening in mid-April, dealt mainly with astronomical and calendrical aspects of time. To underline the immensity of stellar distances and heighten public interest, Mr. Ballantyne incorporated scenes from science fiction, one of them a view of a dying world illuminated by a rapidly-evolving double-star system. For this star system Dr. Clarke calculated realistic parameters; such a configuration could exist and be detected as indicated in the show.

Attendance
For calendar year 1972 the total number of visitors to the Star Theatre alone was about 223,300. Of this number, teachers and students attending educational sessions accounted for nearly 92,000, an increase of about 3,000 over the corresponding figure for the previous calendar year. The show offered during school year 1972/73 was "Reaching for the Stars," in which Mr. N. Green gave students an outline of main developments in high-altitude flight and space research. Several special demonstrations for students of grades 11, 12 and 13 were held in the Star Theatre, also sessions in planetary motions and spherical astronomy for university students.

Special Projects
During the year the Curator completed the final rough-draft copy of the first ten chapters of his book "Geared to the Stars," representing about 60% of the total text. In May he visited museums and libraries in Holland to obtain information about Dutch planetary machines and spent several days in the libraries of the Royal Society, Royal Astronomical Society and Science Museum, London. Collaboration with Mr. J. Millburn, his co-author in England, led to the preparation of a large section of a biography of the Scottish astronomer James Ferguson, the bicentenary of whose death will be commemorated in 1976. In the Continuing Education Programme in University Extension he gave 30 lectures on astronomy and the history of cosmology.

With the assistance of Mrs. Surridge the Curator also organized the Department's programme for delegates and their wives who attended the Fourth International Conference of Planetarium Directors. This event occupied three days and required the hosting of 43 visitors, 30 of whom were directors of large scale planetariums in the United States and in Bangkok, West Berlin, Bochum, Calcutta, Djakarta, Johannesburg, Lisbon, Nagoya, Prague, Sao Paulo and Vienna. During the papers session of the Conference the Curator outlined his research programme and Dr. Clarke spoke on the subject of computer graphics. VEB Zeiss-Jena generously underwrote the cost of the initial reception/dinner and Jena Instruments Limited that of a lunch for the entire party at Niagara Falls. Special thanks are due to Dr. and Mrs. MacRae for providing refreshments at Observatory House to delegates who visited the David Dunlap Observatory. After Toronto sessions the Conference delegates were guests of the Strasenburgh Planetarium, Rochester, and the Adler Planetarium, Chicago.

Research and Honours
Dr. Clarke continued cooperative research with Prof. E.R. Seaquist of the Department of Astronomy, University of Toronto, into the circular polarization of quasars. Combined with other data, this work resulted in the first spectrum of the circularly polarized radiation of compact radio sources (Appendices, page 59). Dr. Clarke also assisted in further observational work at the Algonquin

R. Ballantyne, Curatorial Assistant, during a recording session in the Planetarium Library.

Radio Observatory and continued his research in computer graphics. He initiated new procedure outlines for the preparation of public shows, looked after the Planetarium's contribution to the Science Show 1972, and arranged through the office of the Programme Secretary a display on Lunar Transformations. He also arranged for a temporary exhibit made available by the Canadian office of the Watchmakers of Switzerland; this exhibit and an article by the Curator in the Spring, 1973, number of *Rotunda* supported the public show "It's About Time." In May the Museum Board approved Dr. Clarke's promotion to the post of Associate Curator, effective July 1, 1973.

Mr. Green continued to deal with administrative details and have overall responsibility for the house staff. In July 1972 he went to Gaspé Bay to observe a total eclipse of the sun, and in the following May represented the Planetarium at the General Assembly of the Royal Astronomical Society of Canada. He gave five special demonstrations in the Star Theatre for large organized parties and 11 lectures on astronomy and the Planetarium to outside groups.

Mr. R. Ballantyne continued to serve as council member of the Planetarium Association of Canada. He attended the first general meeting of the International Society of Planetarium Educators at San José, California, where he spoke on the subject of the new sound studio at the NASA-Ames Research Center. He was one of the main speakers at the dedication ceremony of the $20,000 Copernicus telescope presented to the Planetarium of the Museum of Man and Nature, Winnipeg, by the local Polish community. With Mr. Peters he visited the Strasenburgh Planetarium, Rochester, and during his vacation in 1973 joined Mr. Peters on a trip to East Africa to obtain a photographic record of the total eclipse of the sun of June 30.

In August Mr. Harlan Creighton left the curatorial staff for a teaching post at Seneca College. His work was taken over by Mr. W. Peters who accepted responsibility for the overall development of the Planetarium's school programme. The Planetarium also lost the services of Mrs. J. Surridge (Department Secretary), Mr. W. Magill (Photographic Technician) and Mr. D. Halley (Technician II). In September Mrs. C. Gross, formerly Advance Booking Clerk, was promoted to Department Secretary, and in January Mr. M. Giovinazzo joined the staff as Photographic Technician. New to the staff, on a part-time basis, were the first of a number of university students who served as operators at the public shows.

Botany

Leila Gad, Curatorial Assistant

It will be some time before the Museum can boast of its own Botany Department but meanwhile work continues in the Vascular Plant Herbarium, housed in the University of Toronto Botany Department, where Mrs. Leila Gad represents the Museum's interests.

This past year Dr. J.E. Cruise, Curator of the Vascular Plant Herbarium, has had to devote considerable time to his new duties as Associate Dean of the Faculty of Arts and Science and many of the curatorial and administrative tasks concerned with the herbarium have been managed by Mrs. Gad.

The Collections

The year began with the summer collecting season. A series of one-day excursions to poorly botanised areas of southern Ontario helped to provide new records for the herbarium and replicate specimens for exchange. Class material was collected for use in fall courses and seeds were gathered for the International Seed Exchange programme. Each year a Seed List is published and distributed to institutions throughout the world.

The herbarium collections expanded during the year with the addition of more than 3,500 speciments. Some of these were received as exchange. Interesting material was sent by the National Museum, by Queen's University and Lakehead University among others. Some of the important gifts accessioned this year included specimens from Simcoe County donated by T. Reznicek and R. Bobette and from Muskoka donated by E.M. Whiting. These specimens in many cases represent new records for the areas where they were collected.

Research

Many of the research projects being worked on in the taxonomy section require loans of herbarium specimens from other institutions. In the past year over 10,000 specimens of *Rhynchosia*, a genus of tropical legumes, have been borrowed for the studies of Dr. John Grear. These were received from major European herbaria such as Stockholm, Leningrad and Paris and from all the important herbaria in North and South America. Specimens of Grass-of-Parnassus, Ladies-Tresses, Sedges and Pondweeds have been borrowed for graduate students carrying out biosystematic work. Research projects on the flora of Ontario continue under the direction of Dr. J.E. Cruise and manuscripts for publications are in preparation. A joint paper on aberrant trilliums, written with Mrs. Gad, has been accepted by the Ontario Naturalist.

Enquiries and Displays

As usual, the herbarium staff have handled many enquiries from various parts of the university and from public and private institutions including schools, television

and the government. Information on arctic wildflowers has been provided for oil companies and illustrative material for government pamphlets loaned.

Although there is little scope for display work in the University some temporary exhibits have been organized by Mrs. Gad for wall cases in the Botany Department. Assistance has been given to curatorial and design staff working on ROM displays, and an exhibit has been prepared on the Botany of Spices for the ROM Yorkdale cases.

Teaching
Apart from general herbarium work and teaching assistance Mrs. Gad has taught part of the Plant Environment course in the Extension Department and will be assisting with a new course on the "Evolution of Cultivated Plants" in 1973-74.

Outside the ROM and University Mrs. Gad has been involved with the Toronto Field Naturalists Club, curating their literature collections, leading evening botany excursions and acting as a member of the board of directors of the Club.

Entomology and Invertebrate Zoology

Dr. Glenn B. Wiggins, Curator

The year has been one of intense activity for all members of this Department. Viewed in retrospect, our achievements bear out our objective—to contribute to the limits of our resources in both scientific and educational spheres of the Museum's larger role in society.

New Section
Foremost, the year has seen realization at last of a goal pursued for many years. A new section has been created to deal with the many diverse animal groups whose study is treated traditionally under Invertebrate Zoology—such groups as jellyfish, molluscs, starfishes, worms of all kinds. The original focus of the Department on insects and arachnids remains as a coordinate section, Entomology and Arachnology. Two events have been of central importance in this achievement: new space assigned to the Department, and the appointment of Dr. Ian R. Ball to fill a new position of Assistant Curator, responsible for the new programme in invertebrate zoology. Dr. Ball is a widely recognized authority on flatworms, and has had experience with a number of other invertebrate groups.

The new section will enable the Museum to take an active role in building collections for systematic studies on, among other groups, marine invertebrates, a field in which we have not previously been able to function because of lack of space. Our intent is to broaden the activities of this small section and the growth of its collections by encouraging active cooperation with research zoologists elsewhere. In this connection, two new Research Associates were appointed this year: Professor Jacques Berger, Department of Zoology, University of Toronto, an authority on Protozoa; and Dr. David G. Cook, Canada Centre for Inland Waters, Burlington, an authority on aquatic annelid worms. Dr. Glenn K. Morris, Department of Zoology, University of Toronto, was also appointed this year as a Research Associate in entomology.

Research and Field Work
Elsewhere within the Department the year has seen the normal cycle of field work and research. Field studies were focused largely on Ontario, with Mr. Yamamoto in charge of the major expedition to the northeastern part of the Province and into Quebec, assisted by Messrs Ian Smith and Henry Frania. Dr. Wiggins' studies on Trichoptera (caddisflies) were centred largely on temporary pools in Ontario, with some data from field work in Minnesota. Three papers were published, and the manuscript for another completed. Under Dr. Wiggins' direction Mr. Odum completed the illustrations for the reference volume *Larvae of the North American caddisfly genera*. Progress was made on several other studies with Mr. Yamamoto's assistance.

In Dr. Barr's research on aquatic Acari (water mites), field work was centred on the Bruce Peninsula. One paper was published, another is in press, and progress made with

two others. Under Dr. Barr's direction, the annual rearing programme for water mite larvae was carried out by Mrs. Buckley; and Mrs. Sutton made generic determinations for field collections and undertook a preliminary systematic study of water mites of one genus.

Dr. Ball published two papers on Turbellaria (flatworms), has two in press, completed the manuscript for another, and began one other study. His *Handbook of eastern Canadian planarians* is in progress.

In the Lepidoptera (butterflies and moths) Father Riotte, Research Associate, published three papers, and completed the first draft of the manuscript on a study of the *Sphinx gordius* complex. Field work was based at the Queen's University Biological Station.

Dr. Voss, another Research Associate, undertook field studies at the marine biological station at Villefranche sur Mer, France, for the second part of her monograph of Mediterranean medusae (jellyfish), and also at the Atlantic Biological Station, New Brunswick.

The Collections

Good progress with curatorial work on the collections can be reported. Under way are reorganizations of the Coleoptera (beetles) by Mr. Frania, of the pinned Trichoptera (caddisflies) by Mr. Yamamoto, of the Hemiptera (bugs) by Mr. Bruce Smith, and of the Araneida (spiders) by Mrs. Buckley. Dr. Ball generously donated to the Museum his entire personal collection of Turbellaria, a highly significant addition to our holdings. Approximately 16,000 specimens were added to the collections from field expeditions by staff.

Offices and Travel

Members of the Department continued to assume general responsibilities within the Museum. Dr. Wiggins served as chairman of the Study Committee preparing a draft of amendments to the ROM Act, and as a member of the Director's Consultative Committee. Dr. Barr's duties on the Life Sciences editorial board continued, and he was appointed editor in January. He served on two other Museum committees. Among University responsibilities Dr. Wiggins continued his role as project coordinator for

Dr. Ian Ball examining mollusc specimens in a section of the new laboratory of the Department of Entomology and Invertebrate Zoology.

Department of Geology

Dr. J.A. Mandarino, Curator-in-charge

the Laboratory of Analytical Systematics. He supervised the studies of one Ph.D. student, and served on the advisory committee of another. His research grant from the National Research Council of Canada was renewed. Dr. Wiggins presented an invited paper on recent advances in knowledge about Trichoptera at the joint annual meeting of the Entomological Societies of Canada and America in Montreal. Dr. Barr attended the annual meeting of the Acarological Society of America in Montreal. Father Riotte attended the 15th International Congress of Entomology in Canberra and Dr. Voss attended the Second International Symposium on Cnidaria in Japan.

Special Displays and Lectures

Our interpretative programme in all its facets has been strong this year. An overall concept for a permanent gallery of arthropods was completed by Mr. Odum and submitted to Display General. Two more individual cases for this gallery were finished and placed on display. A videotape of the eight cases now in the gallery was prepared, through arrangements made by the Museology Department, for continuous screening in the main rotunda as part of a trial programme in visitor orientation. The Department contributed to the special Museum show *ROM: Nature's Biographer* with an exhibit on the role of invertebrates in freshwater communities developed by Dr. Barr and Mrs. Buckley. Our travelling cases of native insects were exhibited in eleven branches of the Toronto Public Library during the year. The Department's evening course, *Invertebrates—man's unseen associates*, was given again through the Extension Division, University of Toronto. Dr. Wiggins was organizer and host for the ROM lecture series *Urban biology in Toronto*. Single lectures in the series were given by both Dr. Barr and Dr. Wiggins. Staff members gave a number of talks to other groups. And the regular flow of enquiries and services concerning invertebrate animals of all sorts continued unabated.

Keeping all parts of this intensely busy programme on schedule has been the awesome task of our secretary, Judy Allan, and one in which she has earned the appreciation of us all.

This year, because of the appointment of Dr. W.M. Tovell as Associate Director and subsequently as Director *pro tem*, the Geology Department was administered by Dr. J.A. Mandarino, Curator of Mineralogy.

A Geology Search Committee for a new curator was established. After screening many applicants, the committee recommended the appointment of Dr. S.B. Lumbers as Associate Curator-in-charge. Dr. Lumbers will join the ROM in September of 1973.

Without an active curator of geology there were no extensive activities in any field of geology except geobotany under Dr. J.H. McAndrews, Associate Curator. Recataloguing of the rock collection continued as did minor maintenance on the Geology Galleries.

The Geobotany Laboratory

The Geobotany Laboratory began several years ago to investigate the sediments of Crawford Lake near Hamilton. Pollen analysis of the varved or annually layered sediments was performed at five, ten or 25-year intervals back to 200 A.D. Dr. McAndrews and Dr. A.R. Byrne of Erindale College discovered corn pollen in sediments dating from the 14th and 15th centuries, and on the basis of this discovery predicted a nearby agricultural Indian village. Such a village was discovered about 200 metres from the lake and it is dated by ceramics to the first half of the 14th century. Excavation under the direction of Mr. William Finlayson has shown the presence of at least six longhouses implying a minimum population of 400 people. Charred corn seeds and other plant and animal fossils were recovered and await detailed laboratory examination. The excavation was supported by the Halton Region Conservation Authority as well as the Royal Ontario Museum.

Miss Maria Boyko has written an M.Sc. thesis entitled: "History of European Impact on the Vegetation around Crawford Lake, Southern Ontario." In October she presented a paper based partly on her thesis to the American Association of Stratigraphic Palynologists. In competition with 27 other papers she was awarded first for her presentation.

Dr. A.A. Berti, Research Associate and NRC postdoctoral fellow, worked in the Department from October through May. He, with McAndrews and Norris, completed a paper entitled "Key to the Quaternary Fossil Pollen and Spores of the Great Lakes Region." This paper is now in press as a Life Sciences publication. Dr. Berti continued with his study of plant macrofossils from the Scarborough Bluffs. In addition he worked on a computer programme that zones pollen diagrams.

Boyko, McAndrews and Byrne contributed papers at the American Association of Stratigraphic Palynologists, while Saarnisto gave a paper at the Great Lakes Research

Conference. At the Canadian Botanical Meeting a symposium paper was read by J. McAndrews; a paper was contributed by Ramcharan, McAndrews and Grear with a second paper by Byrne and McAndrews. Byrne and McAndrews contributed a paper to the Economic Botany Conference and McAndrews also gave a paper to the International Geological Congress.

Dr. M. Saarnisto, Research Associate, completed his study of the shoreline history of northern Lake Superior. The Laboratory aided him in collection and analysis of lake sediments. His work was presented to the Great Lakes Research Conference. He and Frank Huhn published a paper on computer analysis of fossil shorelines.

Mr. Frank Huhn, student, continued his study of the environmental history of the Sudbury region. His assistance with computer programming is most valuable.

Mr. Eugene Ramcharan, temporary assistant, completed a study on pollen morphology and has submitted it for publication.

Mr. L. King, temporary assistant, is continuing his work on archaeobotanical material from Ontario, Wisconsin and Iran.

In cooperation with the Ministry of Natural Resources, E. Burden, an undergraduate student, and J. McAndrews have completed a report on the vegetation history of the proposed Methodist Point Provincial Park.

This year we welcomed Mr. Reg Adams as our new Field Associate. Mr. Adams has greatly aided us with his skill in operating the scanning electron microscope. He is preparing for publication a pollen diagram from southern Ontario.

Radiocarbon dates or varve dates have been obtained for the eight pollen zone boundaries that have been defined in the lake sediments of southern Ontario. In addition, a radiocarbon date from Rice Lake, near Peterborough, indicates that wild rice has been available to Indian population of the area for the past 4,000 years. This suggests the food source for the pre-agricultural Indians that built the earthworks in Serpent Mounds Provincial Park.

Teaching and Field Trips
Dr. McAndrews taught a University of Toronto course entitled "Ecological Plant Geography and Palynology." The class conducted the research on Rice Lake.

The Laboratory staff participated in *ROM: Nature's Biographer* show with a display of research on Crawford Lake, Sudbury and Georgian Bay.

Dr. McAndrews led a field trip for the "Resource Rangers," and participated in Conservation Week at Crawford Lake.

Collections
This past year we obtained cores of two lakes that contain long series of annual laminations. Found Lake in Algonquin Park was cored completely and contains 9,100 years of sediment. Loon Lake, near Sudbury, has more than 7,500 years of annual laminations. The Found Lake core is being studied intensively for forest fire history, a topic of interest in setting Park management policy.

During the past year we have entered the catalogue data of the pollen reference slides on computer punch cards. Mr. Huhn has written a computer print and sort programme for these cards. The printout greatly aids our exchange programme.

Mrs. Siddiqi has spent much of the year preparing a computer data bank of pollen analyses of Quaternary sediments. Ontario has been completed and in the future adjacent provinces and states will be incorporated. We are exchanging data with Brown University.

LIBRARY.
ROYAL ONTARIO MUSEUM

Department of Ichthyology and Herpetology

Dr. W.B. Scott, Curator-in-charge

This has been a most atypical year in the Department, if, indeed, any year could be considered typical. Dr. Scott was on a sabbatical leave (July-December) at the Biological Station (FRB) Environment Canada, St. Andrews, New Brunswick working on Atlantic fishes. Dr. Crossman was in charge during this period. Dr. A.R. Emery joined the Department as Associate Curator on January 1.

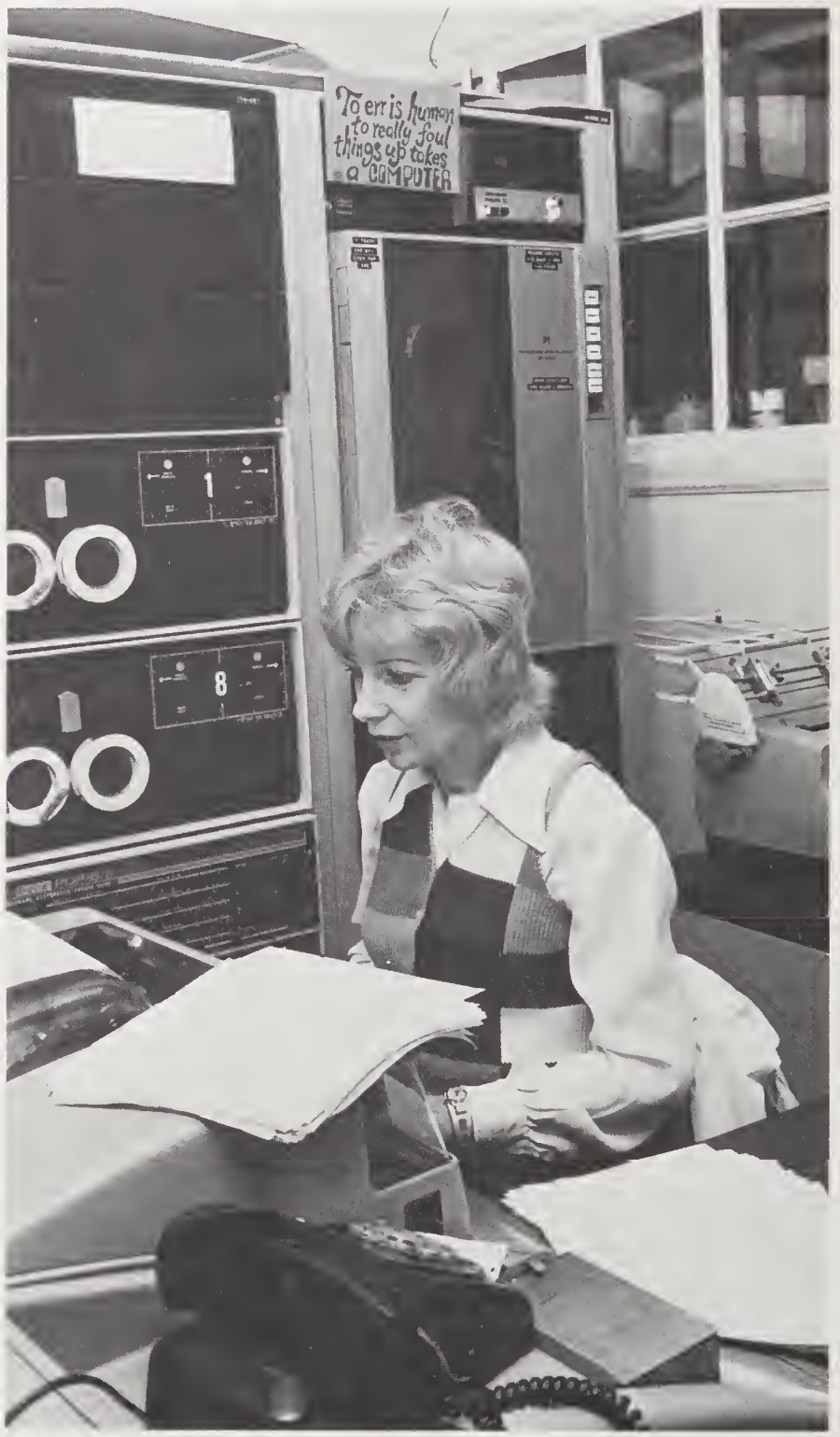
Research and Consultations

Field research was conducted on coral reef fishes at St. Lucia, West Indies (E.J. Crossman); on Atlantic fishes off the Nova Scotia coast (E. Smith) and at St. Andrews, N.B. (W.B. Scott) and in Ontario, in the Lake Ontario watershed (Buerschaper and Smith) in cooperation with the International Field Year of the Great Lakes (IFYGL).

Dr. Emery and Peter Buerschaper provided technical advice and assistance in the production of the underwater scenes for the 20th Century Fox movie, "The Neptune Factor."

The curatorial and non-curatorial staff participated in the various committees set up to consider salaries, job

Eldon Smith, Ichthyological assistant measuring a shark from a cruise on the C.G.S. Dawson in the Southern Atlantic Ocean.



Mrs. P. McGann, computer operator, entering data from fish in the Ichthyological collection, into the computer for analysis.

Department of Invertebrate Palaeontology

Dr. D.H. Collins, Curator

specifications and working conditions generally. A Search Committee for a Director, composed of six Curators and six members of the Board of Trustees met weekly, sometimes bi-weekly, from January to June, Scott serving as chairman.

Exhibitions, Cataloguing, Loans
No new galleries were installed but the Department contributed to the science exhibition entitled *ROM: Nature's Biographer*. In addition, the herpetology gallery was refurbished and is now fully functional.

Machine cataloguing has proceeded most satisfactorily as we continue to modify and improve the system. Over 800 units, involving 7500 specimens, were catalogued within the period. Dr. Crossman serves as coordinator ROM—U. of T., for the Electronic Data Processing facility.

Loans involving hundreds of specimens were made to approximately 50 organizations during the year.

Research does not flourish in the atmosphere that prevailed during this past year, but nevertheless new projects have been commenced, on-going projects advanced and some completed. In all, 16 books and papers (popular and scientific) were published, in a variety of publications, by Buerschaper, Crossman, Emery and Scott. Scott and Crossman have spent many hours since January reading galley and page proof for the *Freshwater Fishes of Canada* text. Publication is expected to be completed in October, 1973.

Lectures and Honours
No formal University courses were presented this year, but the curatorial staff gave a total of 20 lectures to university classes, high schools, professional and non-professional groups within and outside the Museum. The curators also participated in university graduate training by serving on graduate examination bodies and graduate committees.

Dr. Scott serves as President (1973) of the American Society of Ichthyologists and Herpetologists (ASIH) and President, Canadian Conference of Freshwater Fisheries Research. Dr. Crossman serves on the Board of Governors of ASIH and as Director, Toronto Anglers and Hunters Association.

The Museumobile on "The Fossils of Southern Ontario" was inspected by the Minister of Colleges and Universities on June 5th and was received by the Director of Education of Dufferin County on June 7th. Thus a display of Ontario invertebrate fossils, representative slabs of Ontario sedimentary formations, maps and movies of living invertebrates integrated into a single chronologically arranged unit began its journey through rural Ontario.

The use of movies of living invertebrates to bring fossils "back to life" is a further development of the new displays being developed in the Gallery of Invertebrate Palaeontology. Indeed, one of the films used in the Museumobile was taken in the aquarium of Silurian life in the Gallery of Invertebrate Palaeontology. Planning in the new Gallery slackened off during production of the Museumobile.

Computer-Based Data Storage
The pilot programme of transferring data on our collections to a computer-based system continued apace with the help of the Research Agreement received from the Department of Energy, Mines and Resources last year. Federal Government agencies have maintained strong interest in this programme. Dr. Collins was invited to present an account of the programme to the International Geological Congress in Montreal in August, 1972. Further cataloguing of groups of invertebrate fossils already tested in the pilot programme will be assisted by part of a Catalogue Assistance Grant of $20,000 provided by the National Museums Policy Committee for the Departments of Ornithology and Invertebrate Palaeontology.

With such Federal help, the Department urgently needed a permanent cataloguing supervisor. Mrs. Janet Waddington, who was already working on the collections, was taken onto the staff as a Curatorial Assistant. Her temporary position was filled by Dr. Harish Verma, a palaeontologist from McMaster University.

Research into the Feasibility of Techniques for the Standardized Description of Fossils, which could produce computer-processable fossil descriptions, also began this year. Raul Vicencio from McMaster University joined the Department as a Research Fellow to carry out this research under a year's contract with the Department of Energy, Mines and Resources (EMR). Based on Vicencio's interim report, this research has been further boosted by an EMR Research Agreement which will support the project into 1974.

International Geological Congress
A major scientific event was the 24th International Geological Congress held in Montreal in August, 1972. Drs. Collins and von Bitter both attended the Congress, and Congress-sponsored field trips. After the Congress, Dr. Collins visited the classic localities on Manitoulin

Island with Professor Nils Spjeldnes from Aarhus University, Denmark, Dr. L.R.M. Cocks of the British Museum (Natural History) and Dr. P. Copper of Laurentian University. The rest of Dr. Collins' field work during the year was devoted to collecting sedimentary rock slabs for the Museumobile.

Dr. von Bitter attended Congress field trips both in the Rockies and in the Maritimes. He was also invited to accompany Dr. Bruce Waterhouse, of the University of Toronto, to the Yukon in order to study rocks of Upper Palaeozoic age there. Dr. von Bitter presented two papers at the 7th Annual Meeting of the North-Central Section of the Geological Society of America in Columbia, Missouri in April, 1973. After this he carried out field work in southern Kansas and northern Oklahoma, and visited universities and collectors in Nebraska and Iowa.

Lectures, Travel and Research

Dr. Collins coordinated the 1973 Science Lecture Series, "Nature: Cosmic and Earth-bound." Total attendance was 1500 for the six lectures, which produced overflow crowds on two occasions.

Professor Madeleine A. Fritz, Research Associate, continued her bryozoan studies. Her redescription of the type specimens of *Stigmatella* was published during the year in the ROM Life Sciences Contribution Series. She is currently restudying the types of *Heterotrypa*.

T.P. Fletcher, Research Associate, received his Ph.D. from Cambridge University during the year. He assisted on the Congress field trips to the Cambrian rocks of eastern Newfoundland. His research, now under the sponsorship of the ROM, has aroused such interest that he was asked to present an account of it to the Subcommission on the Cambrian System at the International Congress in Montreal, and has now been invited to become a working member of the Subcommission to join the International Union of Geological Sciences Precambrian/Cambrian Boundary Working Party in Siberia in the summer of 1973. Dr. Fletcher also managed some field work in Newfoundland as well.

Dr. A.J. Rowell, Research Associate, also visited Newfoundland with a Congress field party in August, 1972. He will spend his first season in Newfoundland in July, 1973 studying the Cambrian brachiopods.

Dr. Gerd Westermann, Research Associate, went on a sabbatical collecting trip to Africa and New Guinea, collecting specimens for the ROM at the same time.

Mrs. Mary Taylor, who has been helping us with our modern shell collection over the years, added significantly to the collections on a private collecting trip to the South Pacific, Australia and New Guinea.

Other Staff Activities

Dr. C.R. Barnes, Research Associate, with two colleagues published a paper on "Conodont Ultrastructure: The Family Panderodontidae" in the ROM Life Sciences Contribution Series.

John Monteith continues to answer queries and identify the many specimens brought in by the public. Huibert Sabelis set up the Silurian aquarium and helped film the animals for the Museumobile. He built the coral reef and helped collect and cut the slabs in the Museumobile.

Mrs. Russell continued her micropalaeontological preparation work for Dr. von Bitter, and trained the part-time microfossil "pickers."

Miss Burke performed her secretarial duties admirably, as usual. She was also helpful in discussions on clerical/secretarial salary scales.

Interior of Museumobile on the Fossils of Southern Ontario

Department of Mammalogy

Dr. R.L. Peterson, Curator

The year 1972-73 proved to be active, characterized by a wide variety of activities.

Exhibitions
In connection with the exhibition *Nature's Biographer*, the Department prepared a special exhibit, "The World of Bats," which highlighted some of our interests, activities, and research with this group of mammals.

In the autumn the Curator was appointed as administrator in charge of Display Biology, with the objectives of tidying up the third floor north galleries, seeing that the African Rain Forest Diorama be completed, and establishing a special mammal exhibition area, which was opened with a showing of bronze sculptures.

With complete cooperation from the staffs of Display Biology, Mammalogy, Display General, Preparators, and Carpenters, the African Rain Forest Diorama, honouring T.M. Shortt, and the exhibition of bronze sculptures by Robert Glen were officially opened by Dr. John Evans, President of the University of Toronto, on May 28, 1973.

Scientific Conferences
Dr. Peterson represented the ROM at a Symposium on Systematics sponsored by the U.S. National Academy of Science, Washington, D.C., July 2-8, 1972, where he also attended the final meeting of the Conference of Directors of Systematic Collections, which was disbanded in favour of a new one to be known as the Association of Systematics Collections. The ROM became a charter founding member, and Dr. Peterson was appointed to the Membership Committee. He attended the first annual meeting at the Missouri Botanical Garden, St. Louis, from April 29-May 1.

Dr. Peterson also represented the ROM at the Third International Bat Research Conference September 5-10, 1972, at National Park Plitvice, Yugoslavia.

The third Annual North American Symposium on Bat Research, San Diego, November 23-26, 1972 was attended by Dr. Peterson and Ms. Judy Eger, both of whom presented papers.

Dr. Peterson attended the International Symposium on Moose Ecology held at Quebec, P.Q., March 25-30, where he presented the keynote address and in addition presented a paper.

The annual meeting of the American Society of Mammalogists at Asilomar near Monterey, California, June 13-18, 1973, was attended by Ms. Judy Eger and by Dr. Peterson, who continued to serve as a member of the Board of Directors and on the Resolutions Committee.

Editorial Activities
Dr. Tamsitt completed his term as Editor of Life Sciences Publications in January 1973 but remains on the board for an additional year as Associate Editor. Dr. Peterson, who was appointed chairman of the ROM Editorial Board, also continued to act as Associate Editor—Mammalogy for the *Canadian Field Naturalist*. He and the Associate Curator were called upon to referee a large number of manuscripts submitted to various other scientific journals.

Teaching and Lectures
In their capacity as cross-appointed Professors in the Department of Zoology, University of Toronto, Drs. Tamsitt and Peterson were responsible for the course in Mammalogy and served on a number of supervising and examining committees in the School of Graduate Studies.

Dr. Tamsitt contributed to the ROM lecture series on "Urban Biology in Toronto."

Research
Dr. Tamsitt, with Dr. Dario Valdivieso, Research Associate, continued research on blood morphology, hemoparasites, ectoparasites, and biochemstry of bats with support by the National Research Council of Canada, the Canadian National Sportsmen's Show, and the Pure and Applied Sciences Committee of the Department of Zoology, University of Toronto. They worked in Colombia, July 1972, January 1973, and departed again in late June 1973 for further work.

Dr. Peterson continued his study of the Arctic Hares of North America in cooperation with Mr. Tom Manning and also his research on moose and bats. He published five scientific papers and made considerable progress on his studies of *Glauconycteris* of Africa and of molossid bats of Central and South America, and Africa. He was able to spend several days studying the bat collections of the U.S. National Museum in July 1972.

Ms. Judy Eger completed her analysis and study of the bat genus *Eumops* and continued preparation of her M.Sc. thesis. Ms. Eger also developed a high degree of expertise in the use of computers in multivariate analyses.

Mr. David Nagorsen joined the Department in July 1972 as a second Curatorial Assistant.

Mr. Geoffrey Turner, Research Assistant, left the Department after three years. Miss Liliane Lortie was appointed as statistician in November 1972.

Acquisitions
The Acquisitions committee of the Board of Trustees authorized the commission of a bronze sculpture of moose, marking the beginning of a new dimension to the Department's exhibition programme. Conservation of space and great mobility for travelling and special exhibitions were prime considerations in this policy. Research collections increased by 4387 specimens (3878 bats) during the past year.

ROM Committee Service
Dr. Peterson served on the Director's Consultative Committee, ROM staff committee to review suggested changes in the Museum Act, ROM staff committee on Tenure, and Joint Board of Trustees-Staff Committee to review the Price-Waterhouse Report. Dr. Tamsitt retired from his post as Group Coordinator of the Committee supervising the Laboratory of Analytical Systematics after serving from its inception, served on the ROM Search Committee for the selection of a new Director, and on the ROM Space Feasibility Committee.

Extra-departmental Activities and Public Service
The staff participated in a wide range of public services including *ROMarama*. Dr. Peterson was appointed as member of the Board of the Metropolitan Zoological Society, continued to serve on the Board of Directors of the Toronto Anglers' and Hunters' Association, and participated in programmes of the Canadian National Sportsmen's Show. Mr. Brian Herbert, Mr. Jim Borack, and Ms. Eger all provided Tuesday night classes for students in connection with the ROM high school programme. Our "bug room" facilities were made available to a number of institutions. Loans of specimens to professional colleagues at other institutions continued, and visiting scientists conducted studies of our research collections.

Staff Notes
Ms. Judy Eger appeared on the CBC show "Telescope" to discuss bats. Mr. Allan Outram, Jr., again worked in our preparation laboratory during the summer months. Mrs. Sophie Poray continued her activities as illustrator and behind-the-scenes involvement with exhibits. The Department welcomed Mrs. Donna Bunston as Department Secretary and Mrs. Jill Haliburton as Secretary. Mrs. E.A. Roncarelli of the ROM Members Committee aided the Department.

The long-nosed bat, *Leptonycteris sanborni*, feeding on pollen and nectar of a flowering cactus. From exhibit in "Nature's Biographer."

Department of Mineralogy

Dr. J.A. Mandarino, Curator

Several staff changes occurred during the past fiscal year. Mr. B.D. Sturman has been working with the Curator as part of his project with the Joint Committee on Powder Diffraction Standards. Mr. Sturman's interest in minerals has provided the Department with considerable stimulus. Mrs. Doris Shaw, who was a part-time technician, left in April. In the latter part of the year Mrs. Violet Anderson was appointed a Research Associate. Mrs. Anderson's specialty is the colour photography of minerals through tie microscope, and the Department is indeed fortunate to have her on the staff. Voluntary assistance was received from Mrs. Marsha Gould and Mrs. Betty Wansborough. Their help has been much appreciated. Isobel Wolfson has also helped in the main reference collection. Eric Bjarnason was tutored in mineralogy by Dr. Mandarino and Mr. Sturman.

New Specimens

Over 800 specimens have been registered into the collections by Mrs. J. Galt. Of these, eleven are species new to the collections. The TYPE specimens of the new minerals mattagamite and tellurantimony were presented by Dr. D.C. Harris and the TYPE specimen of temagamite was presented by Dr. L. J. Cabri. Both Drs. Harris and Cabri are with the Department of Energy, Mines and Resources in Ottawa. More detailed reports on acquisitions have ueen given in the recent issues of *Rotunda*. Special thanks should be given to Dr. Jack Satterly who, through the courtesy of the Ontario Division of Mines, presented his collection to the ROM. Geologists with the Division of Mines in Sault Ste Marie, Kenora, Thunder Bay and Toronto have also contributed to the growing collections and deserve our thanks. Prof. Guy Perrault of Ecole Polytechnique, Montreal presented a part of the TYPE specimen of lemoynite. Other donors who should be mentioned are Prof. A. S. Povarennykh of the USSR Academy of Science, Mr. Bruce Regensburg of the Caland Ore Co., Atikokan, Ontario, Dr. C. Deusing and Mrs. Martha Sizgoric of the INCO laboratories at Sheridan Park, Dr. G. Springer, Falconbridge Nickel Mines Laboratories at Thornhill and Mr. Jerry Rossouw of Johannesburg, South Africa. Quite a number of important specimens were purchased including some magnificent specimens from the collection of Mr. Dave Wilber. Two specimens, a fine hutchinsonite from Peru and a magnificent Pierrepoint, New York tourmaline were purchased with funds from the M.H. Frohberg Memorial Trust. Both these pieces are a fitting tribute to the memory of Dr. Frohberg. Gem acquisitions include a fine 80.73 carat peridot, a superb 53.69 carat black opal and several lesser gems. Four meteorites were purchased.

Exchanges were undertaken with Mr. Stan Korowski, Zambia; Dr. Akira Kato, Japan; Dr. Jiri Just, Australia; Mr. Elmer B. Rowley, New York State; Mr. Wm. Pinch, Rochester, N.Y.; Mr. Bob Ramik, Ottawa; Mr. Frank Melanson, Madoc; and Mr. Neal Yedlin, New Haven, Conn.

Public and Scientific Activities

Fifty-nine individuals submitted specimens for identification and about 36 letters answering enquiries were sent. As usual a large number of telephone enquiries were answered. Miss Helen Driver has handled most of both types of enquiries.

Approximately 150 specimens were provided for research purposes to other institutions as far afield as Moscow, Tokyo, India and of course the USA and Canada.

Interdepartmental assistance included identifications for the Conservation Department, the Far Eastern Department, Office of the Chief Archaeologist etc. Some of our X-ray diffraction and X-ray fluorescence equipment was again used by Conservation. As usual staff members gave numerous public lectures to various amateur groups and clubs.

Addresses to scientific societies were given by Dr. Mandarino, on fluor-richterite at the International Geological Congress in Montreal, and by Mr. Sturman on a new method of determining the refractive indices of biaxial crystals at the Mineralogical Association of Canada in Saskatoon. Dr. Wicks co-authored a paper on the hydrous nickel silicates presented by Dr. G. Springer of Falconbridge Nickel Mines Ltd., at the International Geological Congress.

Research

The Curator's research involved a joint project between Ichthyology and Mineralogy, concerning the trace-element content of fish. Miss Susan Robinson has done many of the analyses so far and those involved are compiling for publication a bibliography on mercury in the environment. Dr. Mandarino continued to be involved with data collection for the Joint Committee on Powder Diffraction Standards with Mr. Sturman. Both also worked on a new mercury mineral supplied by Mr. W. Pinch of Rochester. Dr. Wicks continued with his major study of the Serpentine Group of minerals, and began studies on the hydrous nickel silicates. Some 900 X-ray powder diffraction patterns were produced, most by Mrs. Cynthia Peat. Mr. Sturman in his work has done over 100 patterns, both by the Guinier method and the Debye-Sherrer method; he has also studied about five minerals by single crystal X-ray diffraction. Mr. Donald McKinnon designed and constructed a recording densitometer. This is being used to measure the intensities of diffraction lines on X-ray films. An outgrowth of this project is another instrument on which Mr. McKinnon and Mr. G. Grant Waite are working. This instrument will measure the reflectivity of a material in order to determine the material's refractive index. This will be extremely valuable for gems with high refractive indices. Mr. U. Grassi continued his service as machinist and instrument maker not only to this Department, but to the ROM as a whole.

Department of Ornithology

Dr. J.C. Barlow, Curator

Special Exhibitions
The Department contributed to the major exhibition, *ROM: Nature's Biographer*. The Mineralogy Department's portion of this show dealt with various research projects (past and present) in the Department and also some projects conducted outside which were aided by our collections.

A portion of last year's temporary exhibition, "Quartz, Quartz, Quartz," conceived and prepared by Dr. Gait, has been preserved in two travelling cases which were put on display at two mineral shows this year. Dr. Gait and Mrs. Peat assisted the Walker Mineralogical Club in preparing the temporary display "Please don't call them rocks."

Three temporary displays were set up in one of the cases in the Mineral Gallery.

Honours
During the year J.A. Mandarino was elected President of the Mineralogical Association of Canada, received a grant of $2000.00 from the Joint Committee on Powder Diffraction Standards, and was appointed a member of that committee's Minerals Sub-Committee. He was also named as Distinguished Alumnus of Lake Superior State College. R.I. Gait was elected Secretary of Mineralogical Association of Canada while F.J. Wicks served as Editor of the Mineralogical Association of Canada Newsletter.

This past fiscal year has featured burgeoning of our anatomical collections, exciting ornithological discoveries in the field and the welcoming of new staff members to the Department of Ornithology. Our skeleton collection reached 12,000 specimens, ranking us fourth in North America in size, and we now have sufficient material for many phenetic studies as well as enhanced ability to identify bird bones from archaeological sites. In the field, working in Mexico in May Dr. James and Dr. Barlow found two nests of the Highland Shrike Vireo (*Vireolanius melitophrys*). The nest of this species has not previously been described. Later in the same month Barlow and Dr. Howard Savage found a small colony of the Guadeloupe House Wren (*Troglodytes aedon guadeloupensis*) in the mountains of Guadeloupe Island, F.W.I. This bird, thought to have become extinct there in 1914, was only redisovered in 1969 by J.C. Roché.

Ross D. James, who first came to the ROM in 1966, completed his doctoral degree in zoology in April 1973 and was promoted to Assistant Curator. Dr. James is especially interested in the behaviour and vocalizations of passerines. Dr. Allan J. Baker joined the staff in August of 1972, having just completed his Ph.D. in New Zealand. He is a biostatistician and an expert on the systematics of oystercatchers (Haematopidae). Dr. R.I.C. Hansell, an Assistant Professor in the Department of Zoology, University of Toronto, was appointed Research Associate at mid-year. He is interested in the theoretical aspects of numerical systematics. Also coming to the staff this year were Ms. Maria Thinh as Departmental Secretary and Ross Harris and Mike McNall as Junior Technicians.

Research
Thirteen expeditions for research and the acquisition of specimens were undertaken in 1972-73 including: July 72—Barlow and James, Ontario; November 72—Barlow and Baker, Morelos, Mexico; December 72—Dick and Savage, Martinique; April 73—Baker and McNall, England, Netherlands and Iceland; April 73—Barlow, Costa Rica; April to June 73—Rising, Baja California, Mexico; May 73—Barlow and Savage, Guadeloupe; and June 73—Dick and Harris, British Columbia and the Yukon.

Museum research involved phenetic and/or chromosomal studies of thrashers, *Empidonax* flycatchers and vireos by Barlow and James; phenetic studies of oystercatchers by Baker; work on an annotated check-list of Ontario birds by McLaren, Barlow and James; papers on theoretical aspects of numerical systematics by Hansell; studies of robins and jays by R.C. Long (Research Associate); and studies of geographic variation in grassland sparrows by Rising. In addition, Dr. Savage identified avian skeletal material from archaeological sites at Kisameet Bay and Nomu, B.C., St. Lucia, B.W.I. and Mississauga, Ontario. Dr. G.K. Peck, volunteer scientist, ably assisted by Mrs. P. Livingston, produced the 9th report of the Ontario Nest Records Scheme.

Public and Museum Service
Technicians Ferguson, Harris and McNall spoke to various youth groups. R.D. James talked to teachers on Teachers' Night and also spoke on "Urban Birds" in the ROM's Urban Biology series. Dr. Barlow conducted cub scouts and naturalist groups on behind-the-scenes tours through the Department. Drs. Baker and Rising each taught adult education courses on birds.

Ornithology featured "avian vocalizations, their significance and study," as its contribution to the ROM's autumn science exhibition. The entire staff participated in answering the daily phone calls and letters received from the public enquiring about birds. Dr. Barlow completed a one-year term as Science Curators' Council Chairman in September of 1972; began a three-year term on the ROM Science Editorial Board in January 1973; and served on several committees for the American Ornithologists' Union. Dr. Savage served a second term as the President of the Ontario Archaeological Society. Dr. Baker counselled graduate students and Museum staff on statistical matters throughout the year.

Meetings and Grants
Research was supported by the National Research Council of Canada through a three-year grant to Dr. Barlow for studies of evolutionary rates in vireos. P.H.R. Stepney and Dr. G.K. Peck also received grants from the Canadian National Sportsmen's Show for the study of blackbirds (Icteridae) and support of the Ontario Nest Records Scheme respectively.

Dr. Barlow attended the 90th meeting of the American Ornithologists' Union at Grand Forks, S.D. in September 1972 and presented a paper entitled "What is a *Vireo osburni*?" Drs. Barlow, Baker, Hansell and Rising attended the sixth annual Numerical Taxonomy meeting in Philadelphia.

Dr. Savage spoke to the Canadian Archaeological Association in March in B.C. on "Faunal changes through time in British Columbia coastal sites and the implications thereof." Dr. Hansell spoke on "Aspects of evolutionary theory" at the Conference on Mathematics and Biology in British Columbia in April 1973.

Collections
Nearly 5000 specimens were added to the research collection in 1972-73 by exchange, purchase, donation and field acquisition. Included were 150 species not previously represented in our anatomical holdings. We also obtained nests of the Golden Vireo, *Vireo hypochryseus*, and the Volcano Junco, *Junco vulcani*. High fidelity tape recordings made by us in the field of the Cozumel Vireo (*V. bairdi*—the first ever recorded), the Guadeloupe Island Wren and the Barbados Black-whiskered Vireo (*V.a. barbadensis*) were added to our growing tape collection.

Teaching Programmes
Dr. Barlow, in his capacity of Associate Professor of Zoology, University of Toronto, taught a course in systematic ornithology in the Department. He surpervised the research of one undergraduate student, one M.Sc. candidate and four Ph.D. candidates. Dr. Rising supervised one M.Sc. and two Ph.D. candidates.

We wish to extend our most sincere gratitude for the innumerable courtesies and kindnesses extended to members of the staff during our work outside of Canada. Especially we wish to acknowledge Dr. Allan R. Phillips of Mexico City without whose help we could not have approached the success enjoyed in Mexico in the past three field seasons. M.M. Piercy, Director of Services, National Office of Forests, Basse-Terre, and especially Dr. Lucas Gruner, Research Station of Zoology, Domaine Duclos, Petit-Bourg, Guadeloupe, F.W.I. made possible the success of Barlow and Savage on that island. Dr. Peter Dare, Senior Scientist, Ministry of Agriculture, Fisheries and Food, North Wales, Dr. Jan Wattel, of the Institute of Taxonomic Research, Amsterdam, Netherlands, and Dr. Finnur Gudmundsson, Museum of Natural History, Iceland, greatly facilitated the work of Baker and McNall.

The first known nest of the Highland Shrike Vireo, Morelos, Mexico.

Department of Vertebrate Palaeontology

Dr. A.G. Edmund, Curator

Two activities absorbed much of the Department's efforts this year. Work continued on the dinosaur gallery, and the office and research area was moved to the north end of the second floor.

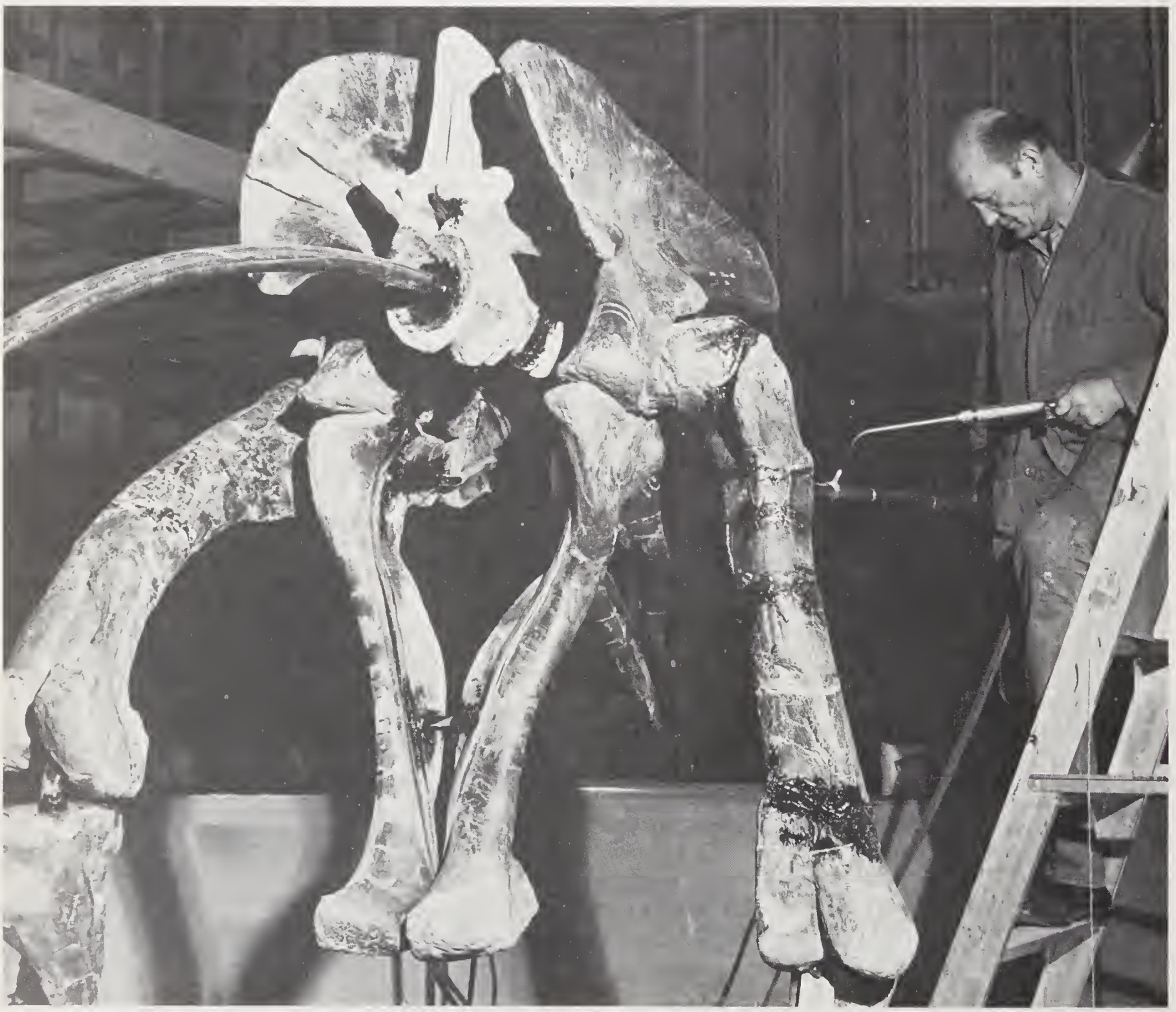
The first (north) section of the dinosaur gallery is virtually complete. Three panel-mounted hadrosaurs are set in a simulated badlands quarry and the processes of fossilization, collection and preparation will be shown in the adjacent mini-threatre. Production of this audio-visual presentation is proceeding rapidly under the guidance of a professional consultant.

The second (central) section depicts life in the late Cretaceous, and an atmosphere is created by the sculptured walls and ceiling, giant coloured transparencies, painted backdrop and numerous plants characteristic of the time. All five skeletons for this area are complete and in place, and information pertaining to their biology will be presented by four film-loop projectors.

The third (south) section, representing the Jurassic period, is progressing well and three of the four skeletons are nearing completion. The fourth, *Stegosaurus*, is being restored preparatory to mounting. Unfortunately, budgetary restrictions have caused the deletion of the scheduled audio-visual programme but this can be added at a later date.

Field Work and Acquisitions

Because of the priority of display work, field work was limited. During the summer of 1972 Dr. C.S. Churcher collected Pleistocene age material in Saskatchewan and



Rudy Zimmerman bending the tail support for the Jurassic dinosaur *Allosaurus*.

Alberta, and Dr. Russell spent six weeks in the Cypress Hills area of Saskatchewan examining the Ravenscrag Formation and collecting in Pine Cree Park. Meanwhile graduate student Paul Ramaekers was prospecting for vertebrate localities in B.C. and Yukon Territory, returning to southern Saskatchewan to collect Tertiary mammals.

June saw the departure of the joint Carnegie Museum, Adelphi College, Royal Ontario Museum High Eastern Arctic Expedition. This examined sedimentary exposures on northern Ellesmere Island and on the adjacent Axel Heiberg Island. The ROM was represented by graduate student Paul Ramaekers, and the museum has contributed funds and acted as logistics centre. June also saw the departure of Dr. Churcher, accompanied by several students, for five weeks in western Canada. Special attention was paid to the fossil rodents at Swift Current.

Dr. McGowan left late in June for a brief exploration of marine exposures in western Canada. Main objective was an examination of the Bearpaw (Upper Cretaceous) Formation which has yielded the geologically youngest ichthyosaur. Ichthyosaurs in the University of Alberta were also examined.

Teaching, Travel and Research

Dr. Edmund taught the University of Toronto Advanced Vertebrate Palaeontology course GLG 426 and continued supervising Mark Wilson and Paul Ramaekers, both Ph.D. candidates. He also supervised special student David Simms, completing a study for course GLG 496.

Dr. McGowan bore a heavy teaching load with U of T courses: BIO 120 during the evenings and ZOO 423 and 464 during the day. He was also a guest lecturer for GLG 426 and ZOO 467. Drs. C.S. Churcher, T.S. Parsons, and C. McGowan presented their joint course in introductory vertebrate palaeontology.

During the summer of 1972 Dr. Edmund travelled widely in Florida and Puerto Rico collecting plant specimens and photographs for the new dinosaur gallery. In November Drs. Edmund, Churcher, McGowan and Russell attended the annual meeting of the Society of Vertebrate Palaeontology in Lincoln, Nebraska. After the meeting Dr. Edmund flew to Fort McMurray, north of Edmonton, at the invitation of the Great Canadian Oil Sands Company who presented the Museum with a fossil log from the lower Cretaceous Athabasca Tarsands.

Separate trips to the Carnegie Museum at Pittsburgh were made by Dr. Edmund and display technician Glenn Spicer to obtain measurements and parts for completion of the dinosaur *Stegosaurus*. A brief visit to the Carnegie Museum and to the National Museum of Canada was made by Dr. McGowan to collect data on ichthyosaurs. Dr. Russell attended the International Geological Congress in Montreal, and the meeting of the Geological Society of America in Minneapolis. Dr. McGowan has been very active in his research on ichthyosaurs, and information obtained during visits to U.K. museums in 1972 is now in press. The fine ichthyosaur skull on loan from the Sedgwick Museum, Cambridge, has been beautifully prepared by Mrs. Rosemary Johnson. Mrs. Johnson, now a temporary assistant, will be joining the Department as a graduate student to continue studies on marine reptiles. The research programme on ichthyosaurs is being supported by an annual operating grant from the National Research Council of Canada.

Dr. Russell's principal project was the description of the fauna of the Ravenscrag Formation (Paleocene) of southwestern Saskatchewan, and the correlation of this formation with Fort Union Group of Montana and North Dakota. Other research included a study of the molluscan fauna of the Hell Creek Formation of Montana.

Dr. Churcher has spent most of the winter working on review papers on the fossil Equidae and Giraffidae of Africa. Work on the sabre-toothed cat *Smilodon* continues.

Purchases and Acquisitions

An extensive collection of Tertiary-age fish from Lebanon was purchased and is of special value for comparison with North American material. Dr. Edmund and Dr. McGowan purchased a fine collection of reptiles and birds from Princeton University. Included were parts of fifteen ichthyosaurs, two large slabs of Triassic dinosaur footprints, a marine Jurassic crocodile, and a moa bird. A plesiosaur skeleton from Lyme Regis, Dorset, purchased from a collector in England, is the first acquisition by the ROM of one of these rare swimming reptiles. Later, two partial ichthyosaur skulls were obtained from a London dealer.

These purchases have more than doubled our holdings of mesozoic marine reptiles, in keeping with Dr. McGowan's policy of developing the ROM as a centre for the study of this group. Lastly, the skeletons of the manatee-like *Desmostylus* and *Paleoparadoxia* were obtained by exchange with Japanese institutions.

Archives Department

Mrs. Margaret Walker, Archives Officer

Nineteen hundred and seventy-two ushered in the Royal Ontario Museum's Diamond Jubilee Year. A great deal happened in that sixty-year period and, like all life stories, there were glad times and sad times. The realization of a dream in 1912; the extension of that dream in 1933; a divorce in 1968; the recurring dream and plans for expansion in 1972. All history-making events!

In recent years, with so many changes coming at shorter intervals, our senior curators became increasingly concerned for the welfare of our own recorded history and so, with the appointment of Dr. Walter Tovell as Director, the Archives Department was born and my new charge began.

To enable me better to meet the task, I have engaged in a series of seminars and workshops sponsored by the Canadian Museums Association, the Ontario Museums Association and the University of Toronto. I have consulted with archivists in the local area, viz., Academy of Medicine, City Hall, Province of Ontario, United Church of Canada, University of Toronto and have established cordial relationships.

The response and cooperation from the established departments within the Museum has been most gratifying and I should like to express my thanks to all who have taken the time and effort to contribute to this important undertaking. Leigh Warren, Head Photographer and David Dudley, Paper Conservator, deserve a special "thank you" for their unstinting assistance.

Minute books, personnel records, correspondence, publications, photographs, drawings and scrapbooks have found their way to their new home. The Minute books and early scrapbook have been microfilmed and this record is in safekeeping. The David Boyle correspondence is in course of conservation.

Three very special treasures have been received to date:

1. The very beautiful book presented to Sir Edmund Walker (first Chairman of the Board of Trustees) by the Canadian Bank of Commerce, on the occasion of his 50th anniversary with the Bank, Friday, July 24th, 1918. Sir Edmund was President of that institution.
2. The camera (*c*. 1885) which Professor A.P. Coleman, first Director of the Royal Ontario Museum of Geology (1913-1922) used in his trek throughout Canada.
3. The Troughton & Simms transit (*c*. 1910) with folding tripod used by the first Director of the Royal Ontario Museum of Palaeontology, Dr. W.A. Parks (1913-1936).

Over two hundred photographs have now been identified, dated and recorded.

By the end of this calendar year it is hoped that all staff members will be photographed in their respective departments for the archival record.

At the present time, I am attempting to build a pictorial history of this important institution and perhaps there is no better opportunity than now, to solicit the cooperation of those who may have in their possession photographs of value to this end.

The presentation book to Sir Edmund Walker from the Canadian Bank of Commerce—1918.

Book and Gift Shops

Mrs. H.R. Downie

At the end of this third and final year of my contracted management of the Book and Gift Shops, I am pleased to think that we have proved a Museum shop can maintain high standards of quality and service to the satisfaction of both the public and the Museum staff, and at the same time make enough money to encourage us all. The figures speak for themselves and show a profit on sales of 15%.

All through the year, the Book and Gift Shops made a special effort to feature books and catalogues relating to our exhibitions, in particular the two books from the Far Eastern Department, *Japanese Art at the Art Gallery of Greater Victoria* and *Chinese Art in the ROM*, and the catalogue prepared by Mrs. Burnham for the splendid exhibition "Cut My Cote . . . ". It should also be mentioned that the poster produced by the Museum for the Japanese Art Exhibition proved to be a best seller.

In order to reach as many members as possible we advertised some item each month in Preview, and at Christmas time invited them to a last minute shopping spree. The flyer which was issued at that time was responsible for bringing in many customers aside from members. A wider audience was reached through a CITY-TV programme when Barbara Barron went on "Sweet City Woman" and showed a few of the interesting things which were available for Christmas.

Stock in the Planetarium bookshop underlines the educational value of the material available to visitors since it includes over 200 titles on astronomy alone. The Mini shop continues to delight children and assist perplexed parents.

The main Shop is open three nights a week and is always open for Preview parties. This enables it to pay special attention to the Museum programme. This was particularly well-demonstrated on the Wednesday evenings when we had literary readings and sold books by the various participating authors.

Museums are constantly under pressure to make sure that archaeological and ethnographical material has reached them honestly so we watch very carefully with curatorial assistance that we have no suspect material for sale. We also try not to sell any zoological item which might be considered all or part of a specimen of a threatened species. The curators help us in many other ways, sometimes making purchases when they are on field trips, suggesting suitable books and articles and giving the Shop the opportunity to take advantage of selling pre-publication orders of their books.

Two Museum reproductions were added to our stock this year from the Egyptian Department; a bronze cat (The Goddess Bastet), and a stone baboon (The God Thoth)—we also added two new Christmas cards and sixteen postcards.

In November 1972 the Shop received a direct gift of 56 Madhubani paintings from Mrs. Arnold Matthews, an introduction for Toronto to this style of folk art which Mrs. Matthews had brought from India. Her most generous gesture was greatly appreciated.

In closing this last report I want to express my thanks for the steady support, encouragement and constructive criticism I received from so many quarters and which I am sure will continue to be given to Mrs. Pat Dowton who has been with me during these three years and who will now take full charge of the Shops with my warmest recommendation and appreciation.

Display Biology

T.M. Shortt, Chief

This year has seen the completion of the most ambitious, complicated and by all accounts the most successful large exhibit the Department has ever undertaken—the Budongo Forest diorama.

The viewer stands, in effect, more than 80 feet above the floor of the African Rain Forest. Before him is a moment frozen in time. An everyday scene which, sadly enough, in a few short years may be only a memory in Africa, is preserved here. A troop of chimpanzees has just burst into an area of the forest canopy in search of fruit. Most of the birds and insects are only mildly concerned, but the small monkeys are quickly alert to potential danger. In another moment they will vanish into the foliage. It has just rained. Sunlight piercing the parting clouds sets the raindrops glittering like jewels. Birds are everywhere—brilliant-hued sunbirds, as bright but no bigger than butterflies, raucous hornbills, glossy starlings, a crested eagle-hawk; everywhere one looks there is life. Great mahogany limbs are miniature forests in themselves, overgrown with mosses, ferns and orchids. Everything is lush, moist and green. Rainwater trickles down branches, seeps through layers of vegetation, spattering upon fur and foliage. A forest squirrel peers timidly at the great apes, while far below elephants drink at a stream which courses along the forest floor.

The finished appearance of this diorama has surpassed even our own expectations. It was a new departure in many ways—the first of five dioramas to have a completely concealed ceiling; the only one to make extensive use of optical illusions. The accuracy of the exhibit has brought great acclaim from the public and the media. Fewer than ten days after it opened the Budongo exhibit was featured on three different television programmes.

We have been especially fortunate this year in adding to our staff the extensive talents of Miss Sylvia Hahn and Mr. Julian Mulock. Their able assistance, particularly on the diorama, has been invaluable.

Public Service

We have carried on our usual steady programme of educational research and information service, both inside the ROM and to the public. This has included a number of lectures and seminars held in connection with ROM Museology courses and with Visitor Services Development programmes, as well as those with student groups at all levels.

The Department's collection of colour slides, pictures and other research material is steadily expanding and has provided much needed information for use in publications and lectures as well as in our exhibits.

Besides some general renovations to older exhibits, a special show, "Who Went There?" was prepared for exhibition at Yorkdale Shopping Centre. It featured bird and mammal tracks to show the "trademarks" one might find within Metro Toronto. Mounted specimens and illustrative material were used along with a gentle reminder of man's own tracks—the litter he leaves behind him.

In the past year we have played host to a number of visitors—artists, scientists and museum workers from various parts of the world.

Travel

David Pepper and Julian Mulock reversed the situation after the diorama's completion by making a museum study trip to the U.S.A. They returned with a wealth of information and ideas on museum display and preparation techniques, including a number of slides taken on the trip. Particularly informative was the lengthy behind-the-scenes visit and discussion with the exhibit staff of the Minnesota Museum of Natural History in Minneapolis, an institution devoted primarily to biological displays. In Milwaukee, a number of institutions were visited including the magnificent Public Museum, The Art Gallery, the very modern County Zoo and the Botanical Gardens with its living tropical rain forest.

Display General

John Anthony, Chief

The Display General Department is a versatile design team capable of dealing with tasks beyond those of pure display. It is constantly under pressure for renovations of permanent galleries and temporary exhibitions as well as office, study and laboratory spaces.

The past year has seen the end of the Jubilee Programme which added heavily to other demands on this Department; however, the overall results were well worth the added effort.

Exhibits

With the willing help of our highly skilled and always obliging carpenters and preparators some 22 exhibits of varying size and complexity were mounted in the main building alone.

The fiscal year started with the opening of *ROM: Nature's Biographer*, which not only marked the middle of our Jubilee Year but was also the first major science exhibition to be mounted in the past seven years and involved all of the science departments.

Perhaps one of the year's more intimate, although large, exhibits was *Japanese Art* from Victoria, B.C. The exhibit had a definite easy viewing quality due not only to the quality of the objects displayed but also to Japanese architectural detailing and precise graphic and colour coordination.

The last major exhibition was *Cut My Cote* . . . which represented a concise outline of straight cut garments, a very important segment of fashion history. This exhibition has been a popular one and has already been requested for extension.

Of the smaller exhibits, perhaps the Campbell Soup Tureens could be called the "star of the Armour Court" and represented one of the more superb collections of its type.

In the Third Floor Rotunda, one of the more interesting shows was the Starr collection of miniatures from Kansas City which, to our knowledge, was the largest collection of this type of art ever to be seen in Toronto at one time.

New installation of the McCrea models, Canadiana building.

Education Department

Norma E. Heakes, Head

The Museumobile programme, initiated the previous fiscal year, became operational with two units representing Ethnology and Invertebrate Palaeontology. We are presently working on a third which will portray Ontario Archaeology and will be operational by Fall of 1973.

Exhibits outside of the Museum included our own showcases, the cases at Yorkdale Plaza, the Fashion Group at Casa Loma and of course, the fun event, *ROMart*. It is a major contribution to the Museum's public image that it extend itself beyond its walls.

Gallery Construction
Gallery construction continues on the East section of Vertebrate Palaeontology at a good rate with a Spring 1974 projected opening. During the same period, two more Chinese galleries were refurbished and a bronze sculpture gallery was opened for Mammalogy, while construction was completed on a European clock gallery. At the Canadiana building, the McCrea Model Exhibit was completed and a new ceramics gallery opened.

Space planning has become an increasingly major concern of this Department and during the past year we have been able to achieve a number of space adjustments which provided many departments with much needed additional space and improved facilities. Unfortunately, after this series of adjustments, the Museum has, generally speaking, run out of every square inch of space, and future space gains will have to await a new wing.

The Royal Ontario Museum provides material for both the study of Human and Natural History to help museum teachers in their task.

The coin of Museum education continues to spin, the obverse side depicting a visit definitely designed to supplement classroom studies; the reverse side giving a broader view of the treasures of the Museum. Although the second is a more casual approach, it may be more relevant to future ways of using the institution.

Visiting Classes
Classes from both elementary and secondary schools continue to be the delight and the despair of the staff. Whether the class is from British Columbia, Nova Scotia, Ontario or the United States, each must be treated individually. The ingenuity and imagination, knowledge and versatility of the museum teacher determines the success of the visit itself. However, the pre-visit preparation and follow-up of the classroom teacher determines the ultimate value of the trip.

A good example is a programme which was offered to a class from Oak Park Junior High School, East York. After six weeks of classroom study of Tudor England, the class visited the Museum. The film "Elizabethan England" set the tone for the day, leading to discussions about the Globe Theatre and Shakespearian plays. Authentic artifacts of the period were handled, sweets of the time tasted, and Elizabethan melodies on the lute, recorder and viol were provided by live musicians.

The programme itself illustrated the cooperation we receive from ali departments. In this instance Mr. C. Keeble of the European Department and Miss E. Martin, Film Archives, contributed to the success of the day.

Staff Notes
The schedules for Auditorium Sessions, planned to give the pupils and teachers an opportunity to participate in a more cohesive programme, were capably set up by Miss Alice Chrysler, although each unit was chaired by an expert in the particular topic. Miss Chrysler's contributions to the work of the Department are many and varied. Her photography and musical talents add a nice balance to our programmes.

Although Miss Betty Clark was absent because of illness for a major part of the winter, her efficient organization kept the 19 Porta Museums circulating according to schedule. We wish for her a healthier and happier year.

Miss Nancy Gahm's scholarly, well-organized contribution to daily schedules has been much appreciated. Because of the unusual absenteeism of our science teachers through illness, Miss Gahm has had to make last-minute adjustments to her timetable which she cheerfully did. She, in addition to her ROM responsibilities, did well in her York University Course in Molecular Biology.

During the year Miss Mary Fitz-Gibbon has given unusual support to Miss Berlin, Supervisor, Saturday Morning Club. Miss Fitz-Gibbon's long experience with museum teaching has made her master of many trades, from supervising the renovation of Porta-Museum cases to giving programmes at the Queen Street Mental Health Centre. The visits were very satisfying to the patients. This year a smaller group and a more relaxed atmosphere encouraged better discussion.

Some thirty years ago members of the Education Department planned what might be called the 'ancestor' of the museum training courses. The wheel has come around full cycle again. One of our teachers, Mrs. Pat Isetta is an active member of the Training Committee of the Ontario Museums Association.

During this past year we have had the pleasure of having Miss Mary Claus on staff. Sponsored by the Department of Northern Development and Indian Affairs, her responsibility was to present to classes information and materials dealing with various facets of Canadian Indian life both past and present. In all, she visited 104 schools and spoke to 6,073 students ranging from grades 3 to 13. In addition, two workshops were held for some 90 elementary teachers of North York. Miss Claus' closing sentence in her report is an understatement of the facts. "Much more work should be done in this area as the lack of concrete knowledge and sensitivity is still truly astounding."

Mr. Riley Moynes, a seconded teacher from North York has spent considerable time and thought on the problem of training teachers to use the Museum. A major conclusion is that the Museum has a real responsibility to inform potential teachers of what a museum can and cannot do for students and teachers. This can be done most practically while they are in training.

Up-grading, continuous learning, or whatever phrase is currently popular, is a must with museum teachers. Individual members of the Education Department attended many of the Jubilee Year celebrations, lectures, musicals, poetry readings, etc. They appreciated the variety and stimulii of Special Exhibitions. Six of them took the Extension Course "Creations in Clay" given by the Greek and Roman Department. During the year others attended seminars and University courses, while three teachers were inspected by the Area Superintendent, Ontario Department of Education, in order to up-grade their certification.

Saturday Morning Club

Last November was a highlight in the history of the Saturday Morning Club of the Royal Ontario Museum. Jubilee Year seemed the appropriate time to recall its origin in 1938 when Miss Ruth Home and Miss Ella Martin organized a club for children interested in the Museum. The recall was more than a mental exercise. It took the form of a Reunion to which all former members, staff, parents and friends were invited.

Calligraphy can be fun—June, 1973.

The reunion gave us the opportunity to honour Miss Eugenia Berlin who would be retiring, June, 1973. Many lives over the past twenty-six years have been enriched by their contact with Miss Berlin. An artist and sculptress, she has always demanded the high standards from her leaders which she has of herself. She has given to leaders and children an appreciation of the cultures of man and the wonders of nature.

Support Staff
A description of the training, experience and personal contributions of our part-time teachers and volunteers would be too lengthy. It is hoped that they realize that our programmes depend heavily upon their participation. A hearty "Thank You!"

Very few persons know the whole story of the Education Department. The office resembles the despatching board of a taxi company. Telephone calls, correspondence, cancellations, adjustments, which eventually affect the teachers, gallery space and lessons are efficiently handled by an extraordinary office staff. It is impossible to stress strongly enough the importance of the work of Mrs. G. Frampton and her assistants.

This year sees the termination of a policy of seconding teachers from the individual boroughs of Metropolitan Toronto. In all we have had seven teachers who have participated in the programme over the last six years. They have acted as liaison persons between Museum and the teachers of their schools. They have certainly made better known the facilities and service of the ROM. We are sorry to see this relationship end but look forward to other kinds of cooperative programmes. We regret that Miss Joan Neilson must return to the classrooms of East York in September. We are also saying goodbye to Miss Janet Seabrook who came to us last year from the Ontario College of Education.

The Annual Report is the yearly opportunity to express our sincere thanks to every member of the Royal Ontario Museum. The Education Department is able to function only because of every other department in the Institution and because of the rapport with the individuals in the Department.

Film Library and Archives

Ella Martin, Film Librarian

The Film Library and Archives provided the film programmes for 19 Sunday Afternoon Film Showings in the Museum Theatre. Total attendance was 8,400 persons. This series was carefully composed to attempt a definition of Man's and Nature's technology and to illustrate how the Arts and Sciences assist him in coming to terms with the impact of the technology explosion.

Archival Films
An important event in celebration of the Royal Ontario Museum Jubilee Year was the presentation of an *Archival Film Festival*. This unique programme provided the silent film enthusiast and film historians with an opportunity to see 11 titles ranging in time from 1895-1931, from Lumiere to Longford, stressing Canadian films. These films, not generally available, were provided through the generosity of the Canadian Film Institute. Attendance at the Festival was in excess of 1,500.

NFB Films
Another film project undertaken in the year was the establishment of regular showings in the Museum Theatre of recent National Film Board film releases. The purpose of the service was to provide for the Museum visitor an opportunity to see Canadian-made films on a regular basis. Thirty one-hour programmes including one hundred and four titles were shown to an attendance of 4,840 persons.

The projection services were provided by the Film Library and Archives for all film showings. Ushers and programme introductions were provided by Museology students and the Senior Citizens Club. The Visitor Services Department ran the NFB programmes. The Film Library and Archives is most grateful for this assistance.

Accessions
The Film Library and Archives acquired 21 commercially produced film titles, bringing the total to 174 subjects presently archived for Museum use. These films are used often in the Museum, and many of them are not available on a rental basis.

The Film Library and Archives is initiating a new pilot project described as a *Visual Index*. The system comprises a Sony 3/4" video tape cassette player (Model VP—1200 continuous play) driving a standard 12" Trinitron Colour TV set. This monitor is to be located in the Members Information Booth area. The purpose is to provide a visual index of various Museum collections, to show in colour and sound what is where in the Museum, and to provide some useful information about the exhibit prior to exploring the galleries.

Information Services

Alex MacDonald, Information Officer

As with other Departments of the Museum, the numerous activities of the second half of ROM's Jubilee year placed a heavy strain on this Department. Yet if the work load was heavy, the rewards were great. With one or two exceptions, attendance at all events—exhibitions, tours, lectures—was excellent. We have continued to integrate many channels of publicity—advertising, direct mail, posters, radio, TV and newspaper stories—to a common end. It appears to be a successful technique.

In addition to publicity related to specific activities there appeared in magazines, newspapers and on television numerous features on Museum personalities and the work of various departments. Notable among these was a 30-minute film produced for CBC's "Telescope" and telecast coast to coast. Understandably the bulk of these features appeared in Toronto media. However, much also appeared throughout the Province and in many parts of the country. We are sensitive to the need for the Museum story to be told in all parts of Ontario and recognize that more must be done. Two developments will help us to this end. With its new Museumobiles and loan exhibitions the Museum will now have local stories to tell; and by changing the Public Relations position from part-time to full-time we shall have a much increased capacity.

Publications

We have remarked in previous reports that the nature of ROM is such that a competent publishing facility is essential to the work of the curatorial staff. Such a facility does exist in the Museum and its productivity expands each year. In this fiscal year Information Services has published 14 academic publications; two exhibition books, *Oriental Rugs* and *Cut My Cote*; two major hard cover books, *Chinese Art in the Royal Ontario Museum* and *Japanese Art at the Art Gallery of Greater Victoria*, each with a separate French translation. In addition at the end of the year there were 25 academic manuscripts and four major books of more general interest in various stages of publication. During the year the Art and Archaeology Editorial Board expanded its publication series to three to include a new, numbered series on Ethnology. At the same time all Art and Archaeology publications were redesigned and now appear in a contemporary format. All editorial and design work on ROM publications is done by the staff of this Department. Since both editors work on a part-time basis and the designer has many other responsibilities the number of books published is very much a tribute to their hard work.

Reproductions

The reproduction of Museum objects in graphic or three-dimensional form for sale is yet another method of extending the Museum to the public. It is an area in which this Department is becoming increasingly active.

During the year two replicas were put into production: a bronze cat and a cynocephalus baboon, both from the Egyptian Department. A third replica, of an Egyptian priest's head, is now in the prototype stage. Sixteen new postcards were produced and the cover of last year's Annual Report was reproduced as a framing print. We also are moving to sell such materials to other organizations. Already sales of postcards have been made to the Art Gallery in Victoria, B.C. and to the Manitoba Government.

There is not space in this report to mention all the other work of the Department: *Rotunda, Preview*, the regular Planetarium brochure, the hundreds of photographs sent out to publishers, for example. Yet they, and so much more, were all produced at their appointed hour. Finally we must repeat our final section in last year's report:

"The effectiveness of this work rests on three essential elements: the specialized skills and enthusiasm of the staff, the cooperation of other departments, and the receptiveness of many people in the media. We thank them all."

Library

Eileen Kulbaba, Head

Statistics compiled for 1972/73 indicate a further increase in the use of the library in all areas. ROM staff requested 10,069 reference searches, a startling 55% increase over the previous year. Visitors and students outside the ROM made 8,258 reference requests, a 9% increase.

Inter-library loan statistics continued their steady climb with 675 items lent to other libraries and 1,001 titles borrowed for use by the Museum staff—a 6% and 14% increase respectively. Museum staff borrowed 9,642 titles for use in the departments.

Despite these increases the library staff managed to catalogue 2,230 titles, reclassify 540, add 17,000 cards to the catalogue and subscribe to 553 journals.

The library wishes to acknowledge the many gifts of literature from both individuals and other institutions, particularly the generous gifts by Mrs. Egerton Brown.

The library distributed 20 Museum publications to institutions around the world as a result of the exchange programme. Many useful publications continue to be received in exchange.

As usual, the professional staff participated in library associations and in June, Miss Dowie attended the Special Libraries Association Conference in Pittsburg.

Storage and Reorganization

Library service was temporarily disrupted in the last month of the year to permit the library staff to pack little used material for storage and to reorganize the remaining collection. Approximately 250 boxes of titles consisting mainly of part of the old Life Sciences and old Geology sections have been shipped into the library storage area in the Canadiana building. Hopefully, the storage material will soon be organized in such a way as to ensure its availability to staff members at one day's notice.

As a result of the reorganization, the library now has room for expansion in most sections for up to two years. Unfortunately, the most rapidly growing collection, i.e. monograph titles, has acquired the least amount of space and it may soon become necessary to initiate a regular programme of weeding out the lesser used material.

The rapidly increasing use made of the library and its services over the last three years, while encouraging from a service point of view, must be a matter of some concern in terms of future planning. During this time period staff reference requests have risen 78%, outsiders reference 96%, inter-library loan lending 83% and borrowing 60%. That the library can continue to expand its services at this rate and administer a growing book collection in an enclosed space, is doubtful.

Museology Department

W. Hewitt Bayley, Chairman

The Museology Department in its third year enrolled its sixth class of 13 students in the School of Graduate Studies Master's Degree Programme. Applications for the seventh class to be graduated in December 1974 exceeded 125, of which number 83 were acceptable to the School of Graduate Studies. Eighteen were accepted by the Department. The Secretary of the Accra Museum in Ghana, Nana-Kow Bondzie, was accepted in April as a special student in Museology, funded by the Canadian International Development Agency.

All but three students graduated from the Museology programme have been engaged in museum work, in such posts as art educator, curatorial assistant, teacher, faunal analyst, resource manager, interpreter, interpretation officer, chief education officer, surveyor, professor, researcher, training for practice as a conservator.

The academic content placed more emphasis this year on exhibit and gallery design under the direction of John Hillen and Frances Brittain. Also added was intensive training in gallery interpretation. Students engaged in gallery exercises to demonstrate how to relate museum materials to visitor experience and knowledge. These exercises were under the guidance of Miss Ella Martin, consultant to the Department, John Hillen, Frances Brittain, David Young and Corey Keeble. Students produced designs for galleries, exhibits, travelling cases, and produced sound-sync slide shows, labels and information sheets relating to their special topics.

Internship Programme

The practical course content for Museology students is improving. It is difficult to involve students in Museum activities without interfering with the demanding flow of scheduled work in the Museum. However, a number of students worked on a regular basis in the Conservation Department and the Canadiana Galleries. Students also spend about a month at the Art Gallery of Ontario.

This year internships were obtained in a variety of institutions ranging from the British Museum, Victoria and Albert, Ulster Folk Museum, to the Niagara Historical Society, Upper Canada Village and The Grange.

More students are becoming concerned with conservation. It is expected that the new Museology Conservation Training Centre, to be established this year, will provide more opportunity for students in the future to explore these concerns in this important area of Museology. Another facet of practical training is in the art of public speaking. Each student was involved in introducing the Sunday Film Programme in the Museum Theatre. In addition each prepared and delivered a twenty-minute oral presentation in the Theatre on the topic of *A Cultural Policy for Canada*.

Museology Library

The Museology Department Library increased to 450 volumes specific to museum studies. In addition, multiple

projector dissolve unit and tape recorder sync-sound equipment was acquired during the year so that the students can now become familiar with this type of audio visual equipment. The most important addition to the equipment inventory was a Sony Porta-Pack 1/2 tape set. Also a 3/4 cassette player is now available for which students will produce programmes. We have organized an exchange programme with other museums for the collection of 1/2 tapes depicting various educational activities made in the various museums.

Funds and Grants
The Donald S. Rickerd Museology Fellowship Fund, originated for student support and special projects in Museology of a research and development nature, has not showed desired growth this year. A solicitation programme is planned to expand the Fund's usefulness.

Students have utilized Museology travel grants to augment their own funds for travel to visit museums. Ten students were provided the registration fees for the Canadian Museums Association Annual Meeting.

A grant of $76,000 has been received from the National Museums Corporation to expand the ROM's Conservation Department on a site outside the Museum to be used as a training centre for the Museology Department students, to be staffed by the Conservation Department. The purpose is not to produce conservators but to give museologists an intensive experience with methods and materials of conservation.

With respect to job opportunities, 17 students have been graduated to date, 9 have completed the course but have not finished their Final Paper. There are 23 employed, two are doing special graduate work related to museums, and one student is travelling abroad. With the implementation of the Secretary of State's Museum Policy, it is expected that Canadian museums will be in a better position to offer employment. One former student, now in an executive position, has arranged for two Museology students to be posted.

Newsletter
A quarterly Museology Department Newsletter is now in Volume 1, No. 3. This communication links all Museology students together, listing their current addresses, posts and accounts of their projects. This information is solicited by questionnaire with 100% response to date. From time to time book reviews are submitted that are pertinent to matters museological. This project was originated and is organized and produced by Mrs. Jo Cruise in addition to her many other duties as Museology Department Secretary.

Museologists observing the technique of bird skinning demonstrated by David Pepper.

Photography

Leighton R. Warren, Head

All departments of the Museum rely heavily on the services of the Photographic Department, and Information Services is no exception. They have a constant need of photographs for publicity, publications, posters, and postcards. One book alone, the late Mr. Harold Burnham's *Keep Me Warm One Night*, contains 491 photographs.

The following figures give some indication of the Department's productivity:

Black and white prints	21,410
Black and white negatives	4,904
Colour slides	5,946
Colour transparencies	374

A Museum Photographic Department must have a good photo printer and we are most fortunate in having Mr. A. McColl. He produces endless amounts of quality photographs with seemingly little effort. The Department has two new photographers, Mr. W. Robertson, Photographic Arts, Ryerson Polytechnical Institute and Mr. J. Chambers, Bachelor of Fine Arts, McMaster University.

Mr. Chambers won first prize in the "International Newspaper Awards" in 1968.

Our department secretary Margaret Cooke has had a busy year, and as usual her pleasant and pleasing personality is a wonderful help in dealing with the various departments who pass through our office.

Programme Secretary

Mrs. H.D. Downie

The Museum's 60th Birthday continued through December 1972 with special exhibitions, lectures, and events. The momentum we gathered during these celebrations carried us forward into 1973 and it will be seen that once started, it is difficult if not impossible to draw back without causing considerable disappointment.

Major Exhibitions

The major exhibition in the Fall of 1972 was the Science Departments' contribution to Jubilee Year, *ROM: Nature's Biographer*. To many visitors, it was an awe-inspiring introduction to the "behind-the-scenes" activities of the researcher and technician.

Japanese Art from the Art Gallery of Greater Victoria was the result of two years of planning and formed one half of an exchange arrangement whereby we sent a selection from our Chinese collections to Victoria in May. While the Japanese material was shown in Exhibition Hall, our Chinese pieces were highlighted in their usual setting in the galleries. Both portions were exhibited at the Montreal Museum of Fine Art in March and April. The exhibition was accompanied by two books, *Japanese Art* and *Chinese Art*.

A small but important collection of portrait miniatures was shown in the Third Floor Rotunda during December and January. The highlight of the collection was the first showing of one of John Smart's last miniatures painted shortly before his death in 1811. In memory of this occasion, Mr. John W. Starr, owner of the collection, presented the European Department with a fine miniature.

Through the generosity of the Campbell Museum in Camden, New Jersey, a spectacular exhibition of soup tureens was shown during February and March 1973. For the exhibition the Museum was able to borrow a fine Canadian silver tureen by Jacques Varin from the Notre Dame Museum in Montreal.

Cut My Cote . . . opened in June and has proved a most popular exhibition. The costumes shown are from the ROM Textile Department.

Third Floor Rotunda

All exhibitions arranged in the Third Floor Rotunda until December were again prepared by Museum Departments—including Egyptian, Greek and Roman, and West Asian. Since January 1973 there have been three other interesting exhibitions.

Lower Rotunda

We continued our Jubilee Year Programme for the Lower Rotunda by inviting Museum-oriented organizations to make use of it for display. In January we returned to showing only graphic material or work which can be hung.

Our indefatigable Hon. Curator of Philately, Mr. Douglas Patrick, continued this year to prepare many exciting stamp exhibitions. Mr. Patrick has been made an Honorary Life member in recognition of the contribution he has made to our programmes.

In spite of the difficulties of exhibiting in the Children's Gallery, Mrs. Bohnen of the Members' Committee succeeded in providing four excellent and varied exhibitions. However, we have ceased to use this area for changing exhibitions and plan for something more permanent from our own collections.

Galleries
The regular exhibitions scheduled by Departments in their own galleries continued in the Textile and Canadiana Galleries, although this year Canadiana showed two special circulating exhibitions, one of which was the 100th Anniversary exhibition of paintings, drawings and prints from the National Archives of Canada.

For the first time, the Star Theatre foyer of the Planetarium was used as an exhibition area for the general public and the first exhibition was "Lunar Transformations," photographs taken by Apollo 15 of the moon's surface.

Lectures and Concerts
The Jubilee lecture programme continued through the Fall with two widely different but equally fascinating topics. Dr. G.B. Wiggins presented the series "Urban Biology" and Dr. Yen Shih persuaded the eminent Sinologist, Dr. Joseph Needham, to come from Cambridge to give three lectures.

The most popular series of the year came in February and March with "Nature: Cosmic and Earth-Bound," organized by Dr. D.H. Collins. The original plan was to hold the lectures at the Planetarium, but attendance was so great we were forced to move to the Theatre.

The Ontario Arts Council again assisted us in arranging a fine concert series in November and December in the Fresco Gallery at 5:30 PM entitled "Interlude." The concerts were followed in February and March by "In Person," literary readings by eminent Canadian poets and novelists introduced by John Robert Colombo.

We were treated to two beautiful choirs this year: the Toronto Youth Choir during the Christmas season, and the Columbus Boychoir in April.

Special Events
Highlights particularly related to our Birthday included the Jubilee Garden Party in September for all members and staff, the Saturday Morning Club Reunion in November, and a reception held by the Museum Board for all past and present Trustees in December.

The Exhibition Openings are always gala events, but probably the most unusual of the year was our recent opening and garden party for *Cut My Cote* . . . when many of the guests wore appropriate costume. The

Opening of the *Nature's Biographer* exhibition.

Visitor Services and Development

David Young, Administrator

Exhibition was opened by the Honourable Jack McNie, Minister of Colleges and Universities.

The opening of two new permanent displays this year drew a great many visitors. The Canadiana Second Floor Gallery of French-Canadian furnishings, including a panelled room and a display of Canadian pottery, was opened in January at two evening receptions for Life Members. In May a diorama of the Budongo Tropical Rain Forest was opened on the third floor in conjunction with a fine exhibition of bronze sculptures of mammals by Robert Glen.

One of the Members' Committee contributions to the second half of our Jubilee celebration was staging their third *ROMarama* on October 16th. It was a "smash hit", bringing in approximately 2,500 guests, and providing an interesting rapport between curator and public.

A Calendar of Events for the year appears on page 64.

Mrs. Downie was made a Fellow of the Canadian Museums Association at its annual meeting in June 1972. In January 1973, she was made a member of the Visiting Roster for the Accreditation Commission of the American Association of Museums. She attended meetings of the Canadian National Committee for the International Council of Museums in Ottawa and Toronto, the Canadian Museums Association in Ottawa, and the American Association of Museums in Mexico and Milwaukee.

Membership

This year was marked by enrolling our 5,000th member, and to celebrate the occasion, Mrs. Ruth Gill was presented with a copy of *Chinese Art* at a New Members' reception organized by our Members' Committee. Mr. Noah Torno, Chairman of the Board, ROM, presented Mrs. Gill with the *Chinese Art* catalogue.

The Member Volunteers Information Desk, the Reception Area, and the Book and Gift Shop continued to be the key points of contact with members of the public who are interested in joining the Museum; but member attracts member, and although we of course lose some annually, the number continues to rise.

Memberships	1972	1973
Annual Individual	2,898	3,184
Annual Family	820	948
Life	786	802
Honorary Life	31	33
Benefactor	27	29
Endowment	5	5
Patron	16	16
	4,583	5,017

The central objective of our Department is to assist the visitor in discovering his way in this environment for learning called the Royal Ontario Museum.

Since the Museum has about three acres of exhibits, orientation can be a major problem for visitors. We discovered the solution not far away. We organized an intensive course for several of our security guards who now, having completed the course, wear a crest marked ROM Information. They would be the first to admit that they cannot answer all the questions. However, questions they cannot answer will be directed to the Information Desk and passed on to this Department.

Special Interest Groups

We also receive requests from a variety of special interest groups which visit the Museum; for example, the Centre for Christian Studies; Engineering Institute of Canada, Professional Development Programme; Toronto Jewish Historical Society; Discovery Theatre; Teachers' Wives' Association of Metro Toronto. We have organized lectures and gallery tours for such groups, either making the presentation ourselves or handing on the request to the Touring Committee of appropriate curatorial staff.

We also use film to complement gallery tours, lectures and visits behind-the-scenes in our programme for senior citizens. This very active group have in their turn made presentations to other groups in the community, such as the Second Mile Club, and thus has spread knowledge of ROM.

A similar pilot project is the ROM Youth Club, a small group of senior high school students who meet weekly in the Museum. Mr. Vanstone has produced a very fine programme drawing not only on curatorial staff but many other people who work in the Museum. Thus, these students have come to know not only the artifacts and specimens, but a wide cross-section of museum people.

The ripples have begun to spread from this programme as well. Representatives from Martingrove Collegiate organized a "Curious George" club in their school and invited Mr. Vanstone to be one of their first speakers. Janet Ellard, a member of the ROM Youth Club, last year received an Opportunities for Youth grant and with five other students put on a summer programme for children ages 7 to 12 years.

Extension Course Programme

Another important aspect of our work is the extension course programme. Last year, we offered eight courses, four in cooperation with the University of Toronto and, for the first time, we administered four courses on our own.

Some of these courses were designed for unlimited enrollment, such as those in Astronomy and Archaeology. Others were designed for very small numbers. Only 15

people could fit into the Conservation laboratory, and this was the limit for our course, *Ceramics for the Collector*. *Creations in Clay*, a course given in the Greek and Roman galleries by the curatorial staff was also designed for a small group which could handle objects in the study room.

Other Activities
Our Department is engaged in a number of other important activities such as the keeping of Museum attendance records, developing a library of audio tapes of curatorial public lectures, previewing films for various curatorial departments, assisting with Wednesday night NFB and Sunday Film programmes and designing and administering questionnaires to evaluate various programmes.

Last year our Department handled the art history programme for first and third year Ryerson students of Interior Design. We established contacts with several cultural and educational institutions in the community, giving an assist to an ambitious venture of a group of students from the Ontario College of Art; assisting a graduate student from the Ontario Institute for Studies in Education in a project on learning with objects; arranging tours for and giving a talk to a hundred librarians from across the province; arranging an evening of films and gallery tours for over one hundred elementary science school teachers; and finally, contact with the Centre for Mediaeval Studies gave rise to the presentation of three short mystery plays in the Armour Court.

We are also beginning to become involved in organizing travelling exhibits. Last year, an entomology exhibit was circulated through ten Toronto branch libraries. Supported by book displays, this exhibit was received with great enthusiasm by parents, teachers and children.

To allow us to go further afield, we commissioned the design of a new type of travelling case which will facilitate the sending of exhibits to remote parts of the province. Two experimental models are now under construction.

Most recently, our Department has also become involved in the scheduling of Museumobile visits to various parts of the province.

The Department of Visitor Services Development relies heavily on the service of other departments in the Museum, and there is not one which has not contributed in one way or another to our programmes. Such assistance and cooperation is greatly appreciated.

Members' Committee

Mrs. W. James Armstrong, Chairman

Sixteen years old and keeping abreast of the population explosion, the Members' Committee has increased more than eight-fold since it was formed in 1957. The original dedicated group of a dozen volunteers has swelled to an equally dedicated 101. During this time the nature and degree of responsibility to the ROM has changed a good deal, but the purpose has not: to assist the staff as they request and to encourage public interest.

Commitments can be roughly divided into three categories, special projects, touring and regular placement, usually in the departments. With this in mind, significant changes were made in the executive structure this year, giving equal recognition to the three areas of responsibility.

Almost half the membership had curatorial jobs in the departments. Their duties included such tasks as arranging and backing of slides and photographs in the Far Eastern library, washing and sorting sherds in Archaeology and cataloguing for Mineralogy. Such assignments, though sometimes routine or repetitious, offer each member the opportunity of working 'behind the scenes' and acquiring a better understanding of the Museum in all its aspects. One enterprising member has made two SCUBA forays into the Gulf of Mexico collecting starfish, sea worms, anemones, etc. for eventual display when the new Invertebrate Palaeontology gallery opens.

Mrs. George Kitching masterminded the challenge of matching member to department, almost a Fischer-Spassky talent!

Four receptions, including introductory tours in the galleries, were organized to welcome new ROM members to their Museum. All were well attended and seemed greatly appreciated. The highlight was the donation of a book on Chinese Art to the 5,000th Museum member. The Director, Dr. Walter Tovell, made the presentation at the April reception.

The handsome dried flower bouquets in the European period rooms were arranged by four talented committee members.

The Museum Volunteers, a separate, less structured group of more than sixty enthusiastic men and women, is administered by the Members' Committee. These volunteers perform the important task of manning the Information Desk 364 days of the year. From this group come most of the "Meeters and Greeters" who welcome and direct the hundreds of school classes visiting the museum annually. In the New Year, a volunteer was assigned, one day a week, to type the volumes generated by the committee. This was a long over-due convenience and necessity, as typing has been a difficult problem for many years.

The tour guides were able to offer conducted tours of all the special Jubilee exhibitions. *Hidden Treasures* and *Nature's Biographer*, two ROM shows, and the Japanese Art exhibit from the Art Gallery of Greater Victoria were followed in January, after Jubilee year, by the magnificent Campbell Collection of Soup Tureens.

The changing displays in the Textile gallery, *Keep Me Warm One Night*, "Harvest '73" and *Ikat* were also toured by the guides.

Tourers again assisted with the very successful Bishop White series of lectures. Perhaps this will become a permanency on the agenda.

Under Mrs. Adam Zimmerman's unflagging chairmanship, but with some apprehension, the tourers decided to double their regular commitment, offering two tours each weekday at 2:00 PM as well as at 12:15 PM. The addition seemed a welcome one and the venture is doing well.

For statisticians, it is perhaps interesting to note that more than 6,000 people attended tours of special exhibitions, and more than 10,000 were conducted on the regular and booked tours. The latter figure includes Planetarium tours and those given to school children in the Canadiana gallery.

ROMarama, the biggest project of the year, recurred for the fourth time, in October. Two thousand ticket holders enjoyed a relaxed, informative evening in a fall fair setting. In the realm of happy coincidences, the Lucky Draw for a yellow diamond was won by an amateur rock hound! From the *ROMarama* profits $1,000 was contributed to the "Group of One Hundred" and payment was made for eleven Morrisseau paintings already contracted for the Ethnology department.

ROMart '73, the annual multi-media student art show, competition and sale, took place outside the Museum on May 25th and 26th. Competent and interesting material was submitted by more than 100 young artists, ten of whom won prizes.

A Jubilee project in the Children's Gallery was completed by the end of 1972. Changing exhibits were organized which included children's illustrations by Elizabeth Cleaver, water safety posters and a selection of Band dolls.

In April, the second conference of Ontario Volunteer Committees of Art Museums was held in Kitchener. A score of Ontario galleries were represented. Three delegates attended from the Members' Committee, each taking part in the workshops or plenary sessions. Such an exchange of ideas is always stimulating and everybody learns. However, it became evident how much assistance committees from larger museums can give to smaller organizations.

In the fall, Mrs. William Randall, a founding member and the first chairman of the Members' Committee, was appointed to the ROM Board of Trustees, as the committee representative. This was welcomed as the first official liaison between the Board and the Committee. In addition, the Committee Chairman was invited to attend all regular board meetings as an observer. Both these developments have been very helpful.

The Committee is always seeking new areas of service and new projects, at the same time enjoying the associations and opportunities for learning. The size of the group will vary according to the Museum's needs, but the dedication, enthusiasm and purpose are constant. It is the guidance, support and cooperation of all the staff that make our existence possible and we are most grateful. It has been a joy and privilege to serve as Committee Chairman.

Museum Attendance
July 1, 1972—June 30, 1973

Main Building	
Visitors—Adults paid	203,107
Others—inc. children	505,947
School Classes	152,215
Other Groups	23,661
Museum Functions	12,265
Rentals	4,969
Total Main Building	898,071
Canadiana	
Visitors	25,802
School Classes	6,665
Other Groups	991
Total Canadiana	33,458
Planetarium	
Public Shows	128,563
Visitors	22,257
School Classes	77,994
Other Groups	3,900
Total Planetarium	232,714
Grand Total	1,164,243

Comparative Total Attendance

1966-67	1967-68	1968-69	1969-70
743,100	836,257	1,369,034	1,330,804

1970-71	1971-72	1972-73
1,266,648	1,372,929	1,164,243

School Attendance 1972-73

Metro	
Conducted classes	48,837
Unconducted classes	32,001
Total classes	80,838
Provincial	
Conducted classes	44,182
Unconducted classes	27,227
Total classes	71,409
O.C.A. & C.C.	
Total classes	6,201
University	
Total classes	1,070
Miscellaneous	
Total number	12,530
O.C.A.—Univ.—Misc.	
Total number	22,809
Canadiana Gallery	
Conducted classes	6,128
Unconducted classes	537
Total classes	6,665
Grand Total	
July 1972—June 1973	181,721

Library

General Statistics—Royal Ontario Museum Library

Report Year	1966/67	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73
Circulation of Literature (volume count)	4,894	4,849	11,360	8,655	8,963	9,498	9,642
Staff Reference Requests	1,990	2,094	3,467	3,723	3,932	4,603	10,069
Reference Service to Others (students, visitors, mail, telephone)	1,519	1,671	3,122	3,918	7,006	7,596	8,258
Interlibrary Loan Items borrowed from other libraries	825	605	833	863	1,084	861	1,001
Interlibrary Loan Items loaned to other libraries	201	236	247	370	574	640	675
Books Catalogued (including recataloguing) (volume count)	1,136	2,424	2,519	3,244	2,994	4,034	2770
Cards Added to Libary Catalogue	14,500	16,200	20,000	25,000	22,500	24,000	17,000
Journal Title Received as Subscriptions (new entry 1967/68)		367	384	435	495	519	553

Record of Increase in Services Over Previous Year etc.

Report Year	1968/69	1969/70	1970/71	1971/72	1972/73
Circulation of Literature	134%	24% (decrease)	3% (increase)	6% (increase)	2% (increase)
Staff Reference Requests	66%	7% (increase)	6%	17%	55%
Reference Service to Others	87%	25%	79%	8%	9%
Total Reference Service	75%	16%	43%	11%	32%
Interlibrary Loan (Borrowing)	38%	4%	26%	20% (decrease)	14%
Interlibrary Loan (Lending)	5%	50%	65%	12% (increase)	6%

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Exhibitions 1972/73

Major Exhibitions 1972

September 12–November 5, Exhibition Hall
ROM: Nature's Biographer
A rare, inside view of scientific research accomplished at the ROM, exhibited by the Science Departments for Jubilee Year, demonstrated how specimens are collected, and their value to the community, and showed Electronic Data Processing and traditional storage and retrieval methods.

December 5–January 28, 1973, Exhibition Hall
Japanese Art from the Art Gallery of Greater Victoria
An important exhibition of Japanese Art included scrolls and screens of the leading painting traditions, ceramics, traditional and contemporary graphics and folk crafts from the Art Gallery of Greater Victoria was arranged with the assistance of the Canada Council.

December 8–January 14, 1973, Third Floor Rotunda
Starr Collection of Miniatures
On loan from the William Rockhill Nelson Gallery, Atkins Museum, Kansas City, the Starr Collection includes English miniatures from the late 16th to mid 19th centuries, and featured 51 consecutively dated miniatures by John Smart. Assisted by a grant from the Canada Council.

1973
February 20–March 25, Armour Court
The Campbell Museum Collection
A major exhibition of 18th century Soup Tureens of silver, pewter and ceramics from twenty-four countries, lent to the ROM by the Campbell Museum in Camden, New Jersey.

June 19–September 3, Exhibition Hall
"Cut My Cote . . . "
A fine collection of regional costume from many parts of the world from the ROM collections and mounted by the Textile Department.

Third Floor Rotunda

1972
July 29–September 4
The Fleet of an Egyptian King
A wall relief, reconstructed on paper, showed scenes of a royal fleet on the Nile which once decorated the lower colonnade walls of the funerary temple of King Menthuhotep II at Deir el Bahri. Many fragments of this representation, dating from 2,000 B.C., destroyed in antiquity, are housed in the ROM.

September 12–October 16
Greek and Roman Life in Miniature
Greek vase paintings, Greek and Roman terracotta figurines and other works of art from the ROM's classical collections illustrated the daily life of the ancients.

October 24–November 26
Iran and the ROM: Exploring a Great Civilization
A display of pictures, photographs and related objects related to the field work being done in Iran by the West Asian Department of the ROM.

1973
January 26–February 25
Medical Illustration
A display of work by members of the Canadian Academy of Medical Illustrators, organized by Mrs. Dorothy Irwin, freelance medical artist, covered various media and a range of subjects from anatomical and surgical work to abstract psychiatric problems.

March 6–April 15
With a Painter's Eye—Cavouk Portraits
Artin Cavoukian, born in Turkey of Armenian parents, is one of Canada's foremost photographers. His love for the great European painters is reflected in his rich, warm portraits.

April 25–July 15
Men's Fashion Plates
The selection of fashion illustrations on display, given to the Museum by Warren K. Cooke, shows the changes in male attire and silhouette over the period from the 1820s to the end of the first decade in the 20th century.

Lower Rotunda

1972
July 5–September 4
The Art of the Eskimo
Thirty Eskimo prints from Cape Dorset, recently acquired by the Museum, interpret everyday life and Innuit mythology.

September 16–October 17
Please!!! Don't Call Them Rocks
This exhibition, by the Walker Mineralogical Club, featured mineral specimens from members' collections, and photographs of the Club's activities such as mineral collecting, micro-mounting and photo-micrography.

October 19–October 29
Mithila Paintings From Madhubani, India
A revival of folk art from a group of villages in the Darbhanga district close to the borders of Nepal. The paintings were given to the Museum by Mrs. Arnold C. Matthews and were sold by the ROM Book & Gift Shop.

Lower Rotunda and Children's Gallery

November 1–November 6
Saturday Morning Club Children's Art
A retrospective look at the work covered by children of the Saturday Morning Club from 1938 to 1972, arranged to coincide with the Saturday Morning Club Reunion on November 6th.

November 16–December 1
The Museum artifacts used in the production of 1972 Christmas cards and Canadian stamps were displayed.

December 12–January 15, 1973
Heavens Above!
Arranged by the Toronto Centre of the Royal Astronomical Society of Canada, the exhibition featured "a stone from heaven"—an actual meteorite weighing 386 lbs., and a display of telescopes made by members in home workshops. Telescope mirror making in the Optical Workshop of the McLaughlin Planetarium was demonstrated.

1973
January 23–February 18
Focal Forum
An annual display of photographs by members of the Toronto Focal Forum, a group of advanced amateurs dedicated to photographic art and pictorialism.

February 22–March 21
New Orleans Jazz Funeral Photographs
An exhibition by Leo Touchet, a self-taught freelance photographer from Louisiana, who describes the photographs as "an attempt to show the sadness and dignity, the pride and humility, the stillness and motion, the silence and music of jazz funerals and the people who take part in them."

April 17–April 26
Oxfam Exhibition
An exhibit of paintings by children in Bangladesh, lent by OXFAM-CANADA. Poignant testimony of children's impressions, hopes, fears and understanding of a land in turmoil.

May 1–May 27
Meteorological Optics
Dr. Alistair B. Fraser, Assistant Professor of the Department of Atmospheric Sciences of the University of Washington, began an extensive photographic collection of all kinds of meteorological phenomena while working as a weather forecaster in Vancouver, B.C. Circulated by the Smithsonian Institution.

May 31–June 26
Children of the World
These photographs by Edward R. Miller of Puerto Rico, first displayed by UNESCO, show children playing, working, and above all, just being children.

Stamps

1972
July 1–August 15
Early postmarks and cancellations on Canadian mail were featured.

August 15–September 30
Stamps from Switzerland portray the symbolic standing figure of Helvetia.

October 1–November 30
"Women on Stamps," a grand-award winning collection.

December 1–January 15, 1973
A collection of stamps on astronomical and space exploration themes by John Morris.

1973
January 19–March 1
Stamps of Henry Hechler, the famous turn-of-the-century faker of Canadian postage stamps who altered genuine stamps to enhance their value.

March 1–April 15
A two-part exhibition with international Air Mail stamps from Poland and stamps from the Western Ukraine.

April 16–May 31
A postage stamp dictionary in which the stamps illustrated terms.

June 1–July 15
Postmarks and cancellations in India: 1810-1872,

Children's Gallery

1972
August 4–September 10
Animal Photographs
A collection of photographs depicting animals in their natural setting. By Tony Tomsic of the Cleveland Press.

September 15–October 30
Theatre Costume Designs
By Eliane Labendz; watercolour drawings of costumes, including those for the Dominion Drama Festival award-winning play "A Flea in her Ear."

November 9–December 11
Illustrations by Elizabeth Cleaver
Mrs. Elizabeth Cleaver, illustrator of children's books, exhibited the original collages created for her work, including those for the Canadian Illustrator's medal-winning "The Wind has Wings."

December 14–January 7, 1973
Saturday Morning Club Children's Art
A display of the work done by the children in the Saturday Morning Club at the ROM.

1973
February 14–March 14
Children's Art by the Saturday Morning Club
Recent work by members of the Saturday Morning Club at the ROM, summed up the Club's season.

Textile Galleries

1972
July 7–August 31
The Arts of Estonia
A special exhibition, arranged to coincide with the Estonian World Conference held in Toronto during early July, included Estonian materials from ROM collections and articles lent by members of the Estonian community.

Mid-July to end of October
18th Century Costume
A special exhibition of costumes dating from the 1740s with even earlier accessories, and an array of embroidered waistcoats.

November 7–December 31
Encore
A condensed version of last autumn's successful exhibition of early Canadian handweaving, arranged to mark the publication of "Keep Me Warm One Night," by Dorothy and Harold Burnham, which is the history of the ROM Textile Department's major research project.

1973
January 10–March 31
Harvest '72
A display of costumes and textiles, selected from items acquired by the ROM in 1972, as gifts or purchases.

April 7–July 2
Ikat
Ikat is an Indonesian term for the technique of selectively resist-dying yarns before weaving to produce patterned textiles. The exhibit, selected from the ROM's textile collections, illustrated *ikat* fabrics from the Islamic world, Southern Asia, the east coast of Asia, Europe and the New World.

Canadiana Gallery

1973
November 17–January 14
Image of Canada
A special display of visuals that document and illustrate all aspects of Canadian life and experience, over the decades; originally organized to celebrate the 100th anniversary of the Public Archives of Canada.

January 20–May 6
Seven Years War–The Struggle for Canada: Montcalm and Wolfe
Maps, charts, prints and memoirs relating to the Seven Years War in Canada, the war that had a greater influence on the development of Canada than any European war.

May 10–September 15
Prints of Canada After Krieghoff
A major exhibition of lithograph drawings made, between 1848 and 1862, after Krieghoff's paintings of Canadian scenery: includes wrappers, title pages from sets of prints, advertisements for Krieghoff's lithographs, etc. The exhibit was planned by Mr. Peter Winkworth of the McCord Museum to mark the 100th anniversary of the painter's death.

Miscellaneous Exhibitions

1972
September–October
Chinese Jades–Travelling Exhibition
This exhibition, referred to in the 1971/72 report, visited five locations in the Northwest Territories from October 6th to November 22nd, accompanied by a member of the staff of the Far Eastern Department.

November 14–December 3, Armour Court
Antique Oriental Rugs
Part of his collection of handsome oriental rugs was lent for display by Mr. John Schorscher. The ancient designs often give the impression of being quite contemporary.

1973
May 15–June 15, Mineralogy Gallery
Diamonds Today Jewellery Collection
Winning jewellery, designed and crafted by Canadian artists, from the competition organized to provide a showcase for Canadian jewellery talents by the De Beers Consolidated Mines, Ltd.

May 29–September 15, Third Floor, North Gallery
Bronze Sculptures of Large Mammals
A collection of bronze sculptures, by artist Robert Glen of Nairobi, Kenya. Glen has captured the beauty, grace and excitement of motion of the living animal with scientific accuracy in every detail.

June 1–August 31, McLaughlin Planetarium
Lunar Transformations
prints made from photographs taken by Apollo 15 of the moon's surface. The purpose of the photographs was to obtain stereoscopic views of large areas of the moon's surface, and the prints were artistic interpretations of these landscapes.

Lectures

1972
Urban Biology in Toronto
An illustrated lecture series about animal and plant species in Toronto, and how they cope with the urban environment. Organized by Dr. G.B. Wiggins, Curator of Entomology, and given in small lecture Room 4 (seating capacity—100) at 8:30 PM. All lecturers were associated with the ROM.
October 5
"The Physical Environment"–Dr. W.M. Tovell
Attendance—95
October 12
"The Plants"–Dr. J.E. Cruise
Attendance—104

October 19
"Bird Life"–Mr. R.D. James
Attendance—114
October 26
"Domestic Insects"–Dr. G.B. Wiggins
Attendance—80
November 2
"The Mammals"–Dr. J.R. Tamsitt
Attendance—115
November 9
"Insect Life of Garden and Ravine"–Dr. D. Barr
Attendance—65
November 16
"The Disappearing Waters"–Dr. E. J. Crossman
Attendance—65
November 23
"An Ecological Viewpoint"–Dr. J.C. Ritchie
Attendance—105

Special Lectures

1972
Science and Civilization in China
Dr. Joseph Needham, Master of Gonville and Caius College, Cambridge, gave three illustrated lectures previewing the subject matter to be published in the 5th, 6th, and 7th volumes of his famous book *Science and Civilization in China*. Held in the ROM Theatre, seating capacity—458.

November 30 (8:30 PM)
"Archaeology and the Sciences in Contemporary China"
Attendance—475
December 2 (2:30 PM)
"Alchemy and Early Chemistry in East and West"
Attendance—325
December 5 (8:30 PM)
"Botany in Classical China"
Attendance—250

1973
Nature: Cosmic and Earth-Bound
Organized by Dr. D.H. Collins, Curator of Invertebrate Palaeontology, held in the ROM Theatre at 8:30 PM (seating capacity—458).
February 14
"Plate Tectonics"
Dr. John F. Dewey, Professor of Geology, State University of New York at Albany.
Attendance—220
February 21
"The Evolution of Life"
Dr. Frank H.T. Rhodes, Dean, College of Literature, Science and the Arts, The University of Michigan, Ann Arbor.
Attendance—275
February 28
"Pathological Eggshells: A Possible Cause for the Extinction of Dinosaurs"
Dr. H.K. Erben, Director of the Institute for Palaeontology, Friedrich-Wilhelms University, Bonn, Germany.
Attendance—200
March 7
"Cambrian Biogeography: The Geographic Distribution of Early Life"
Dr. A.J. Rowell, Professor of Geology, The University of Kansas.
Attendance—140
March 14
"The Search for Extra-Terrestrial Intelligent Life"
Dr. Frank Drake, National Astronomy and Ionosphere Centre, Cornell University.
Attendance—470
March 21
"Computer Simulation of Forms in Nature"
Dr. David Raup, Professor of Geology, University of Rochester.
Attendance—200

Society and Culture
A public lecture series designed to illustrate how culture plays a role in all aspects of society. Held in small lecture Room 4, (seating capacity—100).
March 1
"Government and Culture"
The Honourable Robert Welch, Provincial Secretary for Social Development, introduced by Kay Kritzwiser of the Globe & Mail.
Attendance—75
March 8
"Communications and Culture"
Ran Ide, Chairman and Chief Executive, Ontario Educational Communications Authority, introduced by W.H. Bayley, Film Library and Archives, ROM.
Attendance—45
March 15
"The Church and Culture"
The Most Reverend E.W. Scott, Primate, The Anglican Church of Canada, introduced by A.D. Tushingham, Chief Archaeologist, ROM.
Attendance—75
March 22
"Publishing and Culture"
David Godfrey, President, Independent Publishers Assn., introduced by Peter Martin, President of the Readers' Club of Canada.
Attendance—85
March 29
"Youth and Culture"
Sir John Wolfenden, Director of the British Museum, introduced by Noah Torno, Chairman of the Board, ROM.
Attendance—300 (in Theatre)
April 5
"Universities and Culture"
David P. Silcox, Assistant Dean, Faculty of Fine Arts, York University, introduced by Theodore A. Heinrich, former Director of ROM.
Attendance—53

Miscellaneous Lectures

1972

October 3

"Beauty and the Beast: Nefertiti and Akhenaten the Ancient Egyptian Heretics"

Professor Donald B. Redford, Department of Near Eastern Studies, University of Toronto, sponsored by The Society for the Study of Egyptian Antiquities.

Held in ROM Theatre (seating capacity—458), at 8:30 PM.

Attendance—350

October 10

"Birthplace of the Industrial Revolution"

Dr. Neil Cossons, Director of the Ironbridge Gorge Museum Trust at Telford, Shropshire, sponsored by the British Council.

Held in Planetarium Lecture Room, (seating capacity—180), at 8:30 PM.

Attendance—125

November 6

"The Tomb of Christ in Jerusalem: A Structural History"

John Wilkinson, Principal of St. George College in Jerusalem, co-sponsored by the ROM and the Toronto School of Theology.

Held at 4:30 PM in the Planetarium Lecture Room.

Attendance—69

December 12

"Latest Excavation at Tell Beersheba in Northern Israel'

Professor Yahanon Aharoni, Professor of Archaeology and Historical Geography at Tel Aviv University, sponsored by the West Asian Department of the ROM.

Held at 8:30 PM in Room 4, (seating capacity—100).

Attendance—100

1973

March 12

"Recent Discoveries in the Oases of Egypt"

Ahmed Fakhry, formerly of the University of Cairo, Department of Egyptology, sponsored by the Egyptian Department of the ROM.

Held at 8:30 PM in the ROM Theatre.

Attendance—225

May 24

"Sculpture at the Court of the Medici"

Mr. Charles Avery, Assistant Keeper of the Department of Architecture and Sculpture, Victoria and Albert Museum.

Held at 8:30 PM in the Planetarium Lecture Room.

Attendance—166

1972

Archaeological Institute of America Lectures held Thursdays at 4:30 PM in the Planetarium Lecture Room.

October 16

"Canadian Eskimo Origins"

Dr. William E. Taylor, Director of the National Museum of Man, Ottawa.

November 16

"The Angel Site: A Prehistoric Ohio Valley Metropolis"

Professor James Kellar, Director of the Glenn A. Black Laboratory of Archaeology, Indiana University.

December 7

"In Search of a Mexican Site"

Dr. Peter Harrison of Trent University.

1973

January 11

"Nippur and the Roman-Persian Conflict"

Dr. E.J. Keall, Assistant Curator of the ROM's West Asian Department.

February 8

"The Solomonic City Gate at Gezer"

Dr. John S. Holladay, Department of Near Eastern Studies, University of Toronto.

March 8

"Tholos Tombs of the Aegean Bronze Age"

Mr. Sinclair Hood, Norton Lecturer, Special Lecturer for A.I.A.

April 5

"Akhenaten's Sun-Disc Temple at Thebes"

Dr. Donald B. Redford, Department of Near Eastern Studies, University of Toronto.

May 3

"The Ancient City of Stobi"

Dr. James R. Wiseman, University of Texas, Austin.

Concerts

Held in the Fresco Gallery on Wednesday afternoons at 5:30 PM.

1972

November 1

Martin Polten–Guitar and lute

Attendance—330

November 8

Czech String Quartet

Attendance—290

November 15

Toronto Consort–Mediaeval Instruments

Attendance—450

November 22

Janet Stubbs–Contralto

Attendance—500

November 29

Erica Goodman and Robert Aitken–Harp and flute

Attendance–500

December 6

Jon Higgins and Trichy S. Sankaran–

Indian Classical Music

Attendance—250

Miscellaneous Concerts

1972
December 18–22
The Toronto Youth Choir
Choral music of the season, under the direction of Lloyd Bradshaw, courtesy of the ROM Life Members.
1973
April 17
Columbus Boychoir
On a Canadian tour, the choir, ranging in age from 9 to 14, performed two lunch-hour concerts, under the direction of Canadian-born Donald Hanson.
Attendance—200 to 300
June 9 and 16
Fred Stone Orchestra: Children's Concerts
Dr. Seuss' stories narrated and provided with a musical score by the Fred Stone Orchestra.
Attendance—June 9—140, June 16—175

Literary Readings

1972
In Person
Assisted by a Canada Council grant, and arranged by John Robert Colombo, Managing Editor of *Tamarack Review*.
September 6
Robertson Davies
Attendance—300
September 13
Adrienne Clarkson
Attendance—260
September 20
Matt Cohen and Ian Young
Attendance—180
September 27
Michael Ondaatje
Attendance—194
October 4
Dennis Lee
Attendance—195
October 11
Nelson Ball and David McFadden
Attendance—165
October 18
Martin Myers
Attendance—160
October 25
Mariam Waddington
Attendance—200

ROM Special Events

1972
July 10
Estonian Reception
Mr. Burnham officiated at the opening of a small exhibition prepared in honour of a worldwide Estonian Rally held in Toronto.

July 17
19th Century Victorian Vignette Opening
By special invitation from the European Department.

September 11
ROM: Nature's Biographer Opening
Dr. O.M. Solandt, founding chairman of the Science Council of Canada, opened this Science exhibition. 1,450 people attended.

September 25
Jubilee Year Garden Party
Board of Directors invited all members and staff to celebrate the ROM's 60th birthday.

October 16
ROMarama '72
Approximately 2,500 visitors enjoyed this behind-the-scenes open house party. Tickets were sold at $3.50 per person. Arranged by the ROM Members' Committee.

November 6
Saturday Morning Club Reunion
All former participants of the Club, and their families, were invited to attend the Reunion.

November 7
'Ksan Potlatch
Carving demonstrations, songs and dances by the Tsimshian Indians of the 'Ksan Indian Village on the Skeena River in British Columbia.

November 13
University of Toronto Press Reception
In connection with the publication of Dorothy and Harold Burnham's book "Keep Me Warm One Night."

November 13
Antique Oriental Rugs Reception
A private reception was given by John Schorscher to view the Antique Oriental Rugs on loan to the ROM.

November 27
Museum Marketplace
Christmas shopping spree for Museum members.

December 4
Japanese Art from the Art Gallery of Greater Victoria Opening
The opening was held in the Armour Court and was attended by 1,100 persons. It was opened by the Japanese Ambassador, His Excellency A. Nishiyama.

December 11
Starr Collection of Miniatures Opening
The exhibition was opened at a reception for Life Members by Mr. John W. Starr.

December 16
Saturday Morning Club Annual Christmas Party
For the children of the Saturday Morning Club and their families.

December 18
Annual ROM Staff Christmas Party
Held in the Armour Court from 8:30 PM to midnight.

December 20
Reception
To bring the Jubilee Year to a close, the Board of Trustees held a reception for the past and present trustees of the ROM.

1973
January 8 and 9
Canadiana Gallery Opening
For Life Members to view the "Image of Canada" exhibition from the National Archives and the opening of the newly installed 2nd floor gallery.

January 12
Copernicus Lecture
In conjunction with the 500th Anniversary of the birth of Nicolas Copernicus, a lecture on Astronomy by Professor Iwanowska, Head of Astrophysical Observatory in Torum, Poland was presented by the Copernicus Committee. A contemporary painting of Copernicus was unveiled and presented to the Planetarium.

February 19
Campbell Collection Opening
Mr. Torno introduced the President of The Campbell Soup Company, Mr. Harold A. Shaub, who opened the exhibition. There were 1,150 members in attendance.

February/March
Identification Nights
Held from 7:00 to 9:00 PM by the following departments.
February 6 European Department—Porcelain and Pottery
February 13 Ornithology and Entomology Departments—Birds and Bugs
February 20 Greek and Roman Department
February Invertebrate and Vertebrate Palaeontology Depts.—Fossils
March 6 Canadiana Department

March 5
Cavouk Opening
A private opening by The Honourable William B. Davis was given by Mr. A. Cavoukian.

March 30 and March 31
Towneley Crucifixion
The Poculi Ludique Societas of the University of Toronto presented the Towneley cycle of mystery plays as performed in the North of England during the late 14th, 15th, and 16th centuries.

April 18
New Members Reception
To honour the 5,000th member to join the ROM, Mrs. Fred Gill was presented with a copy of "Chinese Art".

May 14
De Beers "Diamonds Today" Reception
A private reception by De Beers Consolidated Mines, Ltd. to present awards in connection with a competition and exhibition of diamonds.

May 25 and May 26
ROMart '73
The third *ROMart* organized by the ROM Members' Committee featured a student art show and sale, in front of the Museum and in the Planetarium plaza.

May 28
African Rain Forest Diorama/Bronze Sculptures of Mammals Opening
Opening by Dr. John Evans, President of University of Toronto, of an exhibition of Bronze Sculptures of Mammals by Robert Glen and an African rain forest diorama by Terry Shortt, attended by 825 persons.

June 11
An Evening with Chinese Furniture
A lecture by Robert Ellsworth of New York City followed by cocktails in the Far Eastern Galleries and dinner in the Main Dining Room. $25.00 per couple was charged to raise money for the Museum's Bishop White Fund. Organized by Mrs. Edgar Stone.

June 18
"Cut My Cote . . . " Opening
Exhibition of traditional garments from the ROM's Textile collections was opened by the Honourable Jack McNie, Minister of Colleges and Universities. Many of the 1,070 guests wore costume in keeping with the theme.

June 25
Retirement Party
Held in ROM Garden at 4:00 PM, for Miss E. Berlin, Mr. W. Forrest, and Mrs. H. Ignatieff.

The ROM was host this year to a number of related organizations and other museums.
July 22–25
International Planetarium Directors Conference
August 10 & 18, September 9
International Geological Congress meeting & tours.
October 2
National Museums Luncheon
November 21
Brody Club 700th Meeting Dinner
November 29 to December 3
American Anthropological Association
February 16
International Council of Museums Meeting
April 28 & 29
Canadian Micro Mineral Association 10th Annual Workshop and Conference

Distinguished Visitors 1972-1973

Dr. Paul Adams, University of Massachusetts, Amherst, Mass.
Dr. Y. Aharoni, Tel Aviv, Israel
Mrs. Lisa Alison, Redpath Museum, McGill University, Montreal, Quebec
Mr. Paul Allman, San Francisco, California
Dr. R. Anderlie, Director of Buffalo Museum of Science, Buffalo, N.Y.
Mr. Sergio Angeletti, Consul General of Italy, and Mrs. Angeletti
Mr. Harold Arbour, Louisiana Arts & Science Center Planetarium, Baton Rouge, Louisiana
Dr. G.D. Ashgirei, Head of Geology Department, People's Friendship University, Moscow, U.S.S.R.
Dr. Ronald Austin, Geology Department, University of Southampton, England
Mr. John Ayers, Keeper of Oriental Antiquities, Victoria & Albert Museum, London, England
Mr. Hans Beck, Zeiss Planetarium, Jena, East Germany
Dr. Joseph Beller, Zeiss Planetarium, Hamburg, West Germany
Mr. & Mrs. Sidney M. Bergman, Carnegie Museum, Pittsburg, Pa.
Dr. Bernhard V. Bothmer, Chief Curator, Brooklyn Museum, Brooklyn, N.Y.
Dr. Franklyn Branley, Hayden Planetarium, New York, N.Y.
Dr. C.F. Burk, Jr., National Coordinator, Canadian Centre for Geoscience Data, Ottawa, Ontario
Mr. & Mrs. J.D. Burke, Yale University Art Gallery, New Haven, Conn.
Miss Elizabeth Burton, Witney, England
Dr. Victorio Capolongo, Planetario y Observatorio Astromico Municipal de Rosario, Rosario Santa Fe, Argentina
Mr. & Mrs. John Carr, Charles Hayden Planetarium, Boston, Mass.
Dr. Joseph Chamberlain, The Adler Planetarium, Chicago, Illinois
Von Del Chamberlain, Abrams Planetarium, East Lansing, Michigan
Mrs. Yolande Crowe, The Ghubeyra Excavations, Iran
Dr. L.M. Cumming, Geological Survey of Canada, Ottawa, Ontario
Dr. Mary Dawson, Carnegie Museum, Pittsburgh, Pa.
Dr. Robert De Mar, University of Illinois, Chicago, Illinois
Mr. F. DeMatteis, Artist
Dr. Frits DeVree, Antwerp, Belgium
Dr. Gero Dolezalek, Max-Planck Institut für Europäische, Frankfurt am Main, West Germany
Dr. Frank D. Drake, Cornell University, Ithaca, New York
Mr. John Ebdon, The London Planetarium, London, England
Professor H.D. Erben, Director of the Institute for Palaeontology, Friedrich-Wilhelms University, Bonn, West Germany
Dr. A.J. Erskine, Canadian Wildlife Survey, Ottawa, Ontario
Dr. John Evans, President, University of Toronto
Professor K.V. Flannery, University of Michigan, Ann Arbor, Michigan
Dr. Jan Fontein, Curator of Asiatic Art, Museum of Fine Arts, Boston, Mass.
Dr. Richard C. Fox, University of Alberta, Edmonton, Alberta
Captain Silva Gameiro, Planetario Calouste Gulbenkian, Lisbon, Portugal
Mr. & Mrs. Thomas Geary, Johannesburg Planetarium, Johannesburg, South Africa
His Excellency James George, Canadian Ambassador, Teheran, Iran
Mr. Robert Glen, Nairobi, Kenya
Baroness Guillaume, La Bretch, France
Mr. J. Gulledge, American Museum of Natural History, New York, N.Y.
Professor & Mrs. Charles Hagar, Planetarium Institute, San Francisco, Cal.
Mr. Donald Hall, Strasenburgh Planetarium, Rochester, N.Y.
Mr. H. George Hamilton, Fels Planetarium, Philadelphia, Pa.
Dr. W. Roger Hamilton, British Museum of Natural History, London, England
Professor Carol Hamlin, Queen's College, New York, N.Y.
Mr. Laurence G. Harrison, Brookvale, Australia
Dr. Renata Holod-Tretiak, University of Pennsylvania, Philadelphia, Pa.
Mr. Sinclair Hood, Ashmolean Museum, Oxford, England
Mr. Siegfried Hulss, Zeiss-Jena, East Germany
Mr. Anthony Jenzano, Morehead Planetarium, Chapel Hill, North Carolina
Dr. P. Johnsgard, University of Nebraska, Omaha, Nebraska
Dr. Dimitri Kaljo, Director, Institute of Geology, Estonian Academy of Sciences, Tallinn, Estonian SSR
Dr. Hans-Ulrich Keller, Planetarium Sternwarte Bochum, West Germany
Miss Diana Kirkbride, Director, British School of Archaeology, Iraq
Dr. Gisela Krien-Kummrow, German Archaeological Institute, Berlin, West Germany
Professor Kropotkin, Moscow, U.S.S.R.
Mr. Adolf Kunert, Zeiss Planetarium Wilhelm Foerster Sternwarte, Berlin, West Germany
Dr. & Mrs. Israel Levitt, Fels Planetarium Franklin Institute, Philadelphia, Pa.
Dr. Robert M. Lewert, University of Chicago, Chicago, Illinois
Mr. Glen Loates, Artist
Monsieur Pierre Lunet, Consul General of France
Mr. Donald Lunetta, McGraw-Hill Planetarium, New York, N.Y.
Dr. Eveline Marcus, São Paulo, Brazil
Dr. N. McAllister, Department of Indian Affairs & Northern Development, Ottawa, Ontario
Dr. Maurice McKeown, University of Manitoba, Winnipeg, Manitoba

Mr. George McLean, Artist, Parry Sound, Ontario
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